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NOTE

An Arabian Troubleshooting Guide is included as part of this Schematic Package Supplement. The Arabian Troubleshooting Guide contains Atari CAT Box* troubleshooting procedures and signal name descriptions.



Schematic Package Supplement to



Operators Manual

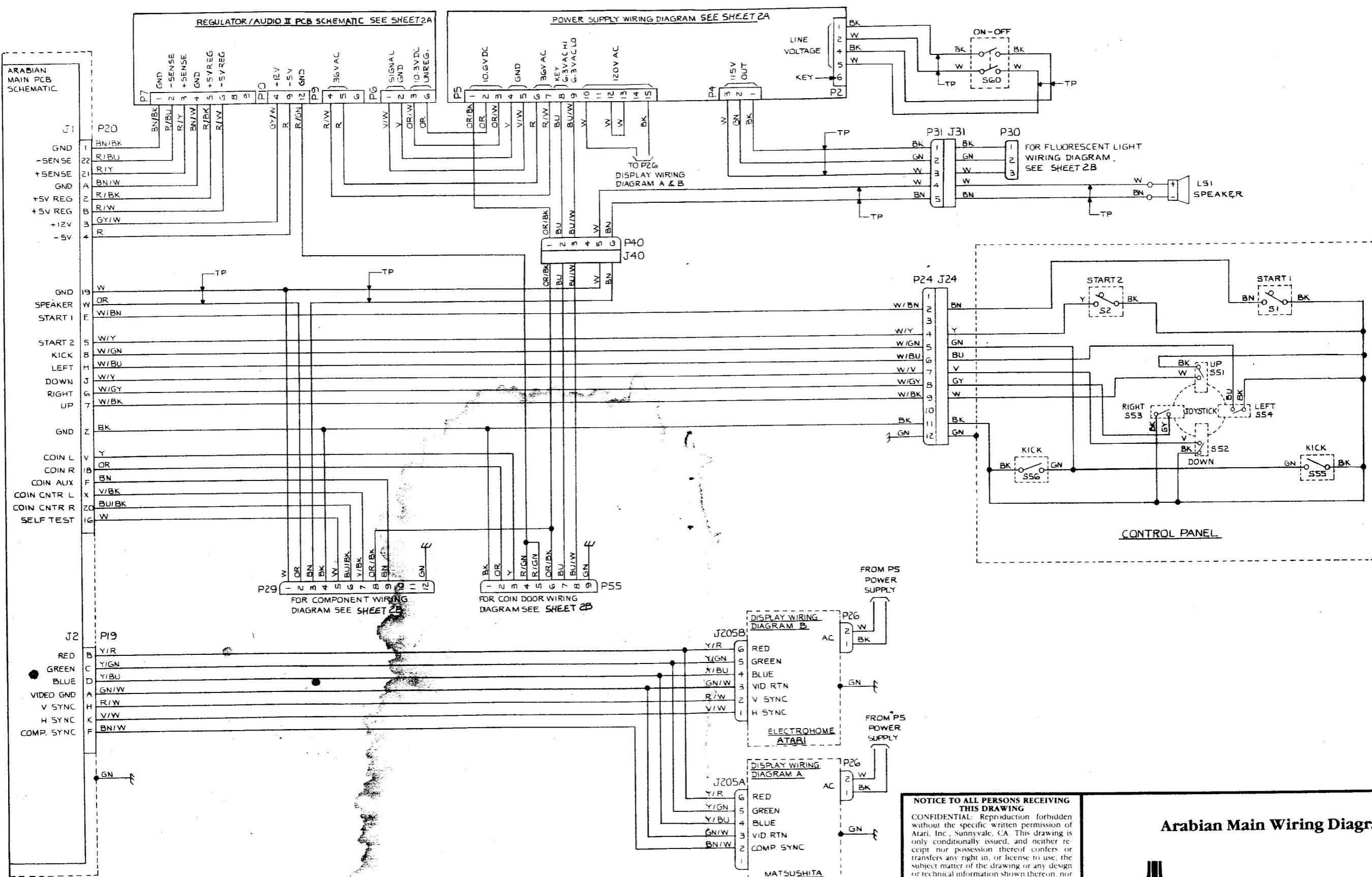
Includes
Troubleshooting Guide

*Manufactured under license from Sun Electronics Corporation.

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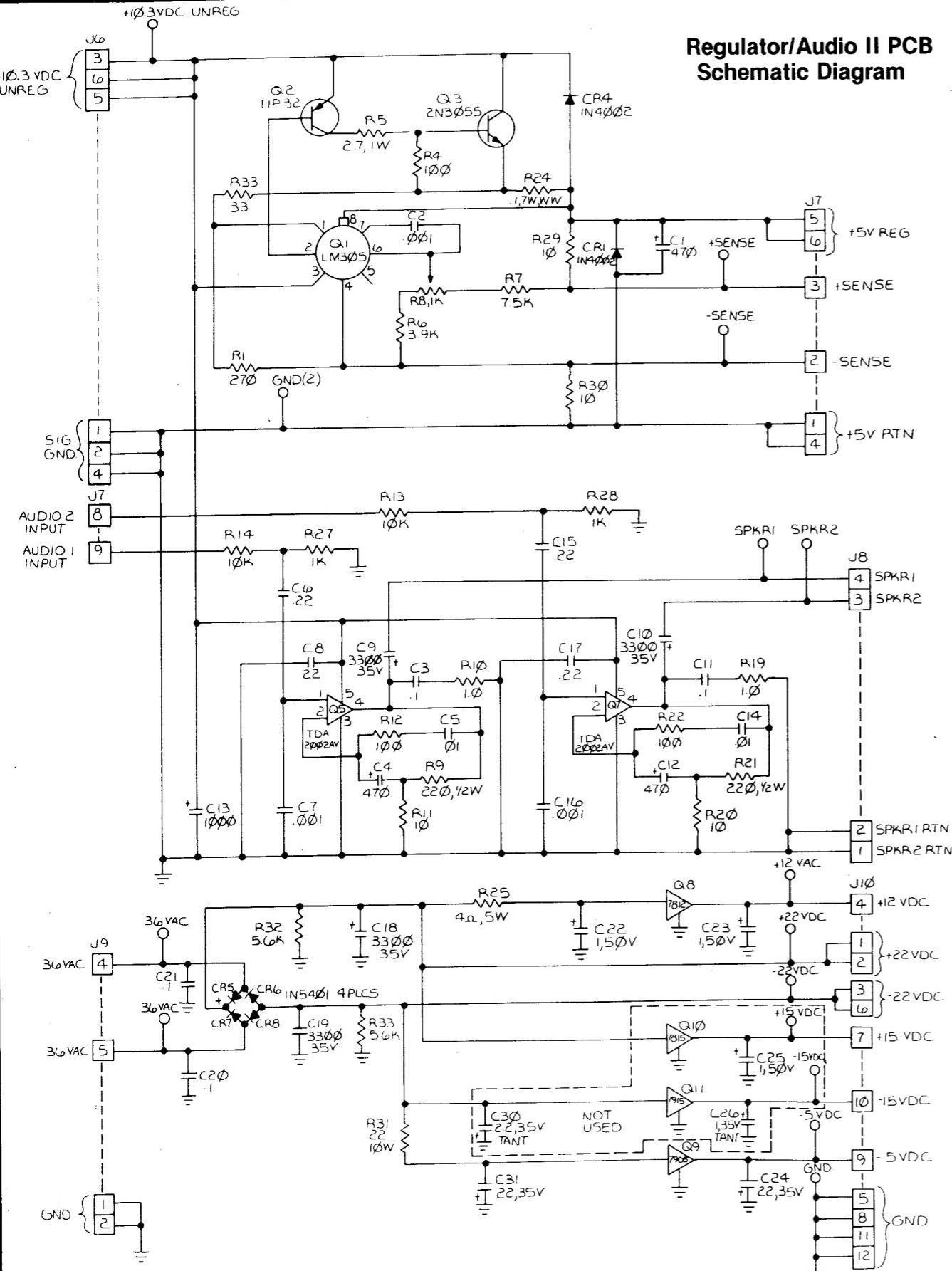


Arabian Main Wiring Diagram

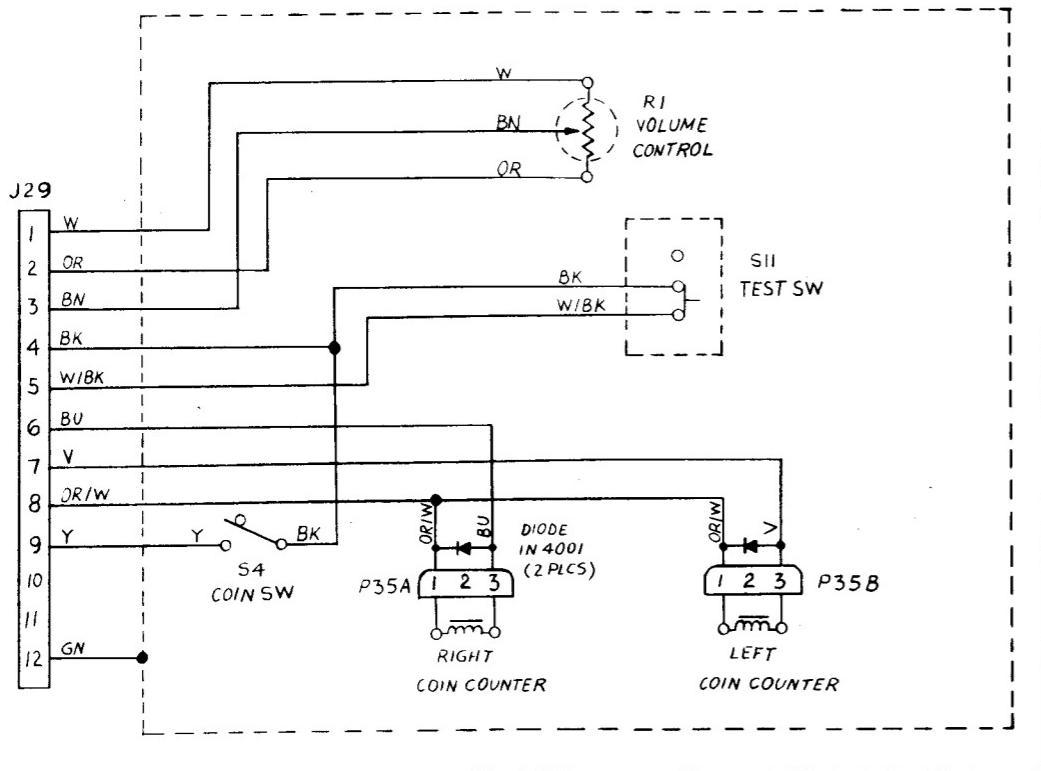


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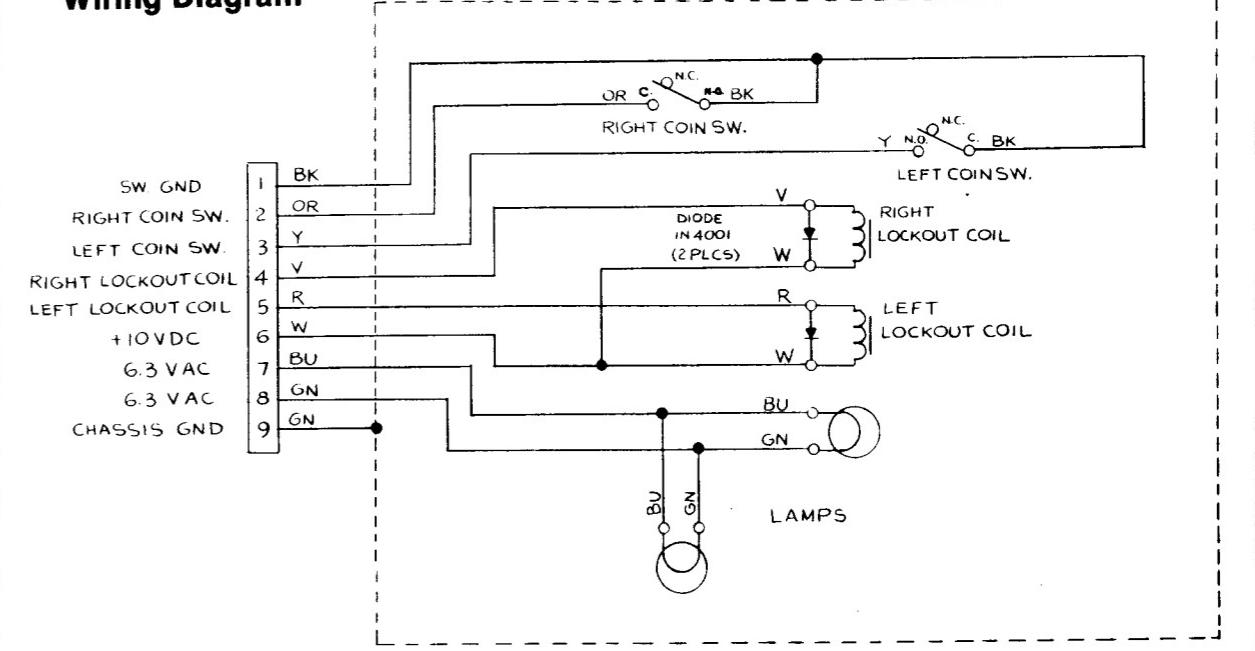
Regulator/Audio II PCB Schematic Diagram



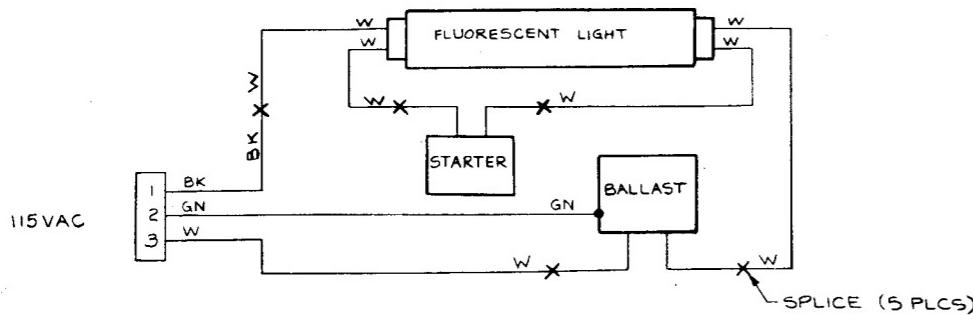
Utility Panel Wiring Diagram



Coin Door Wiring Diagram



Fluorescent Light Wiring Diagram



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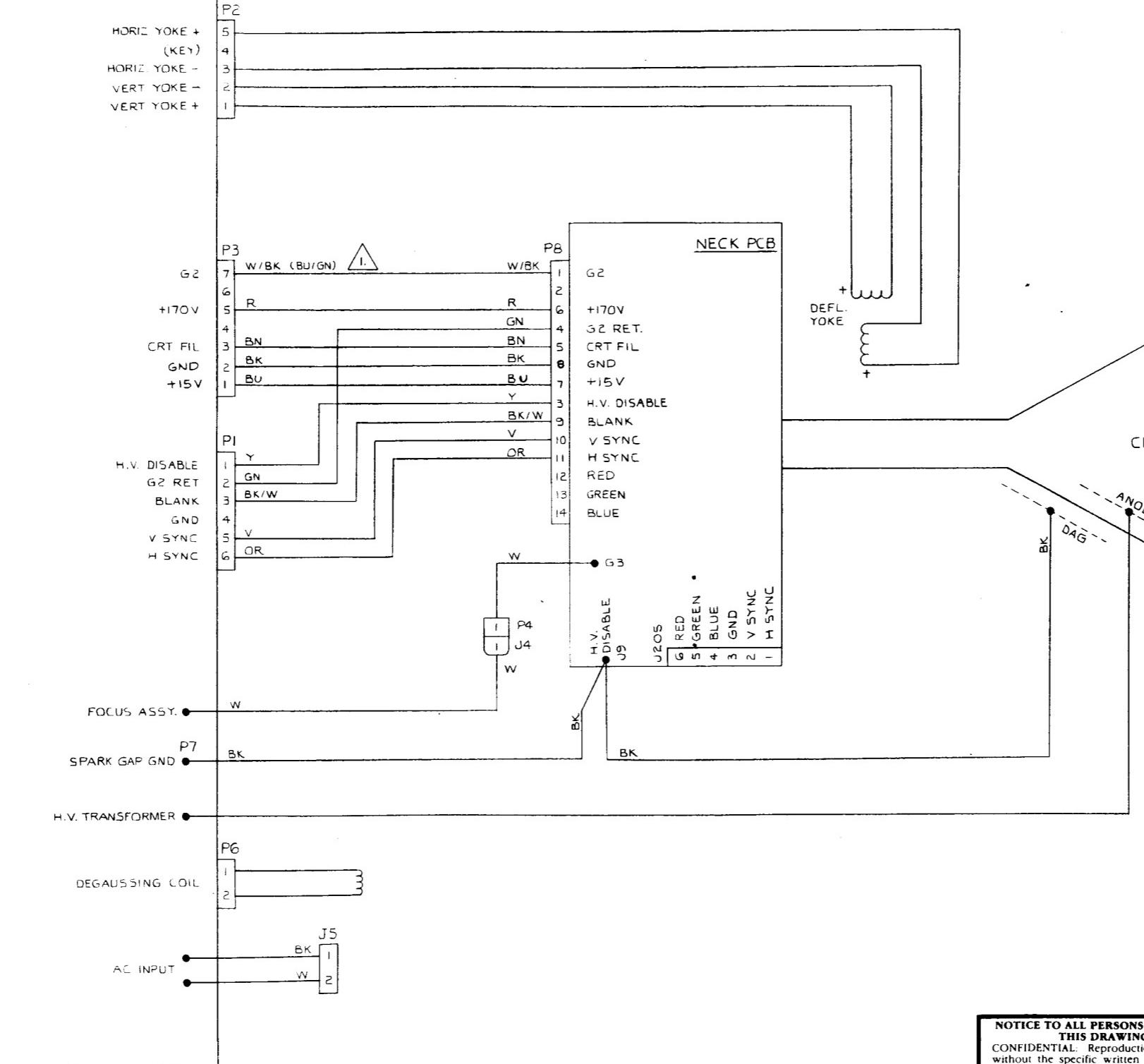
Arabian Game Interfaces



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DEFLECTION PCB



NOTE:

I. ALTERNATE COLOR IN PARENTHESES ().

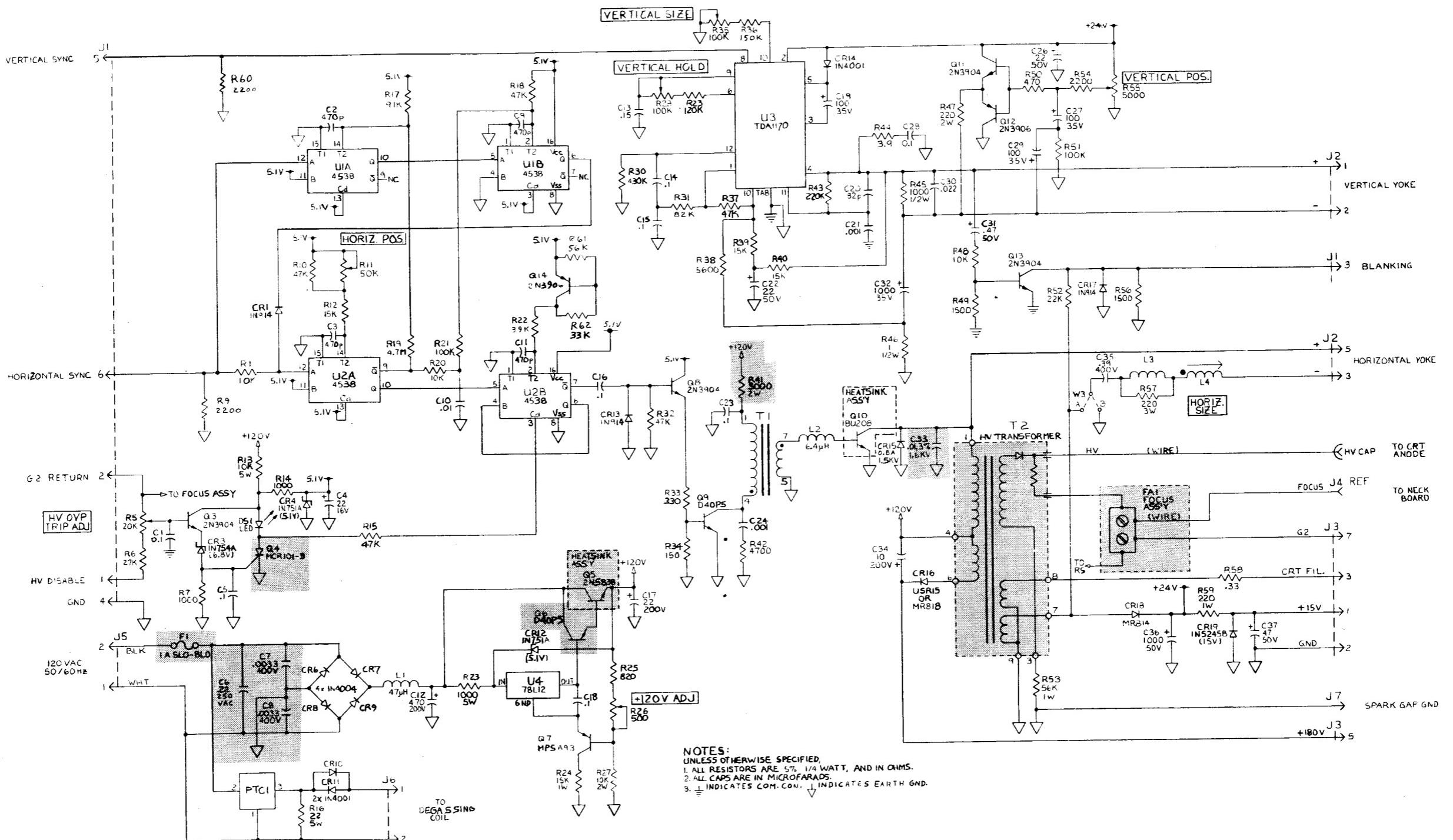
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Atari Color Raster Display Wiring Diagram



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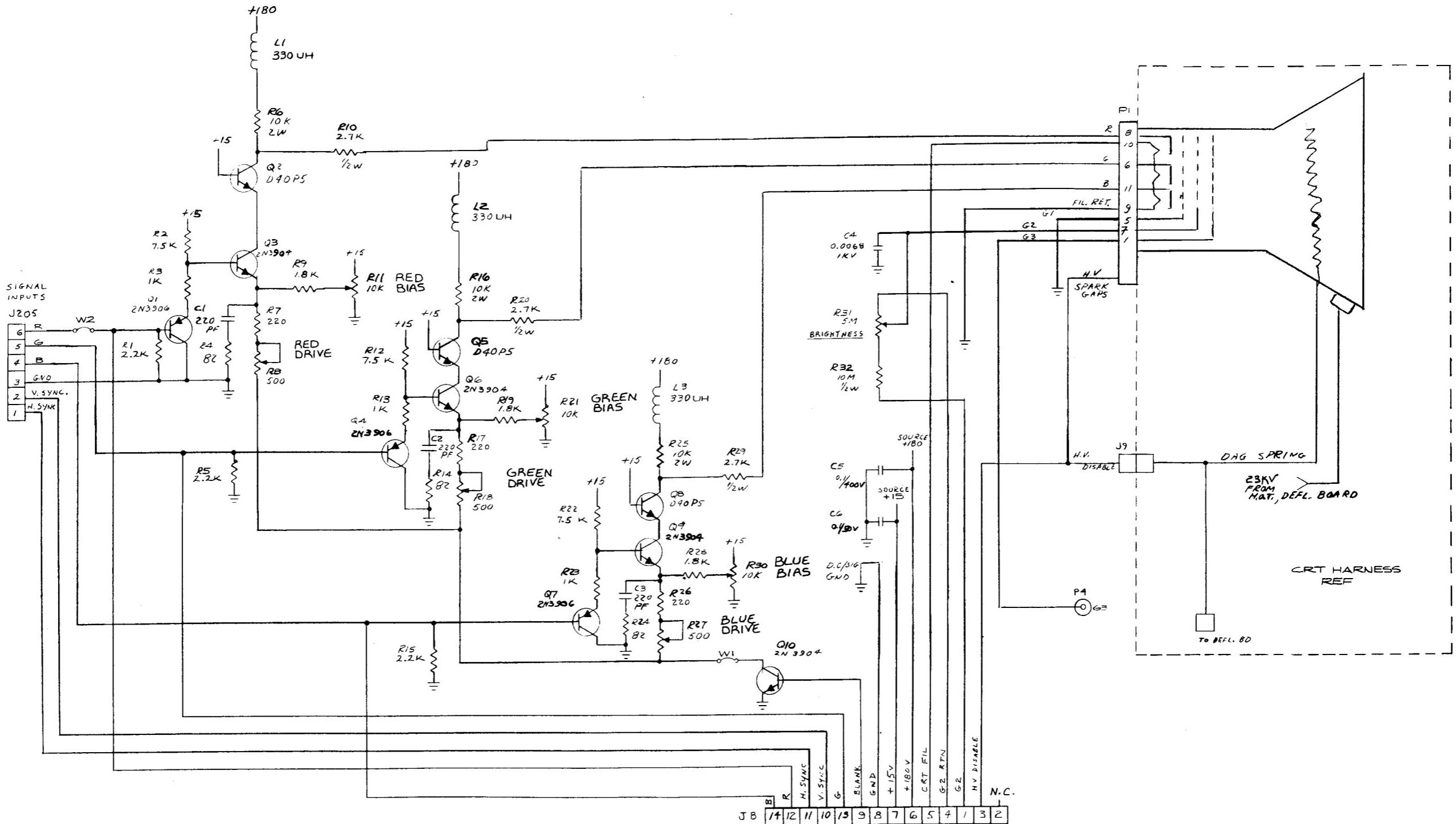
The shaded areas of this schematic indicate components whose values are of special significance to product safety. Should any component in the shaded areas need to be replaced, use only the value given in the parts lists. Do not deviate from the resistance, wattage, and voltage values shown.

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Atari Color Raster Display Deflection PCB Schematic Diagram



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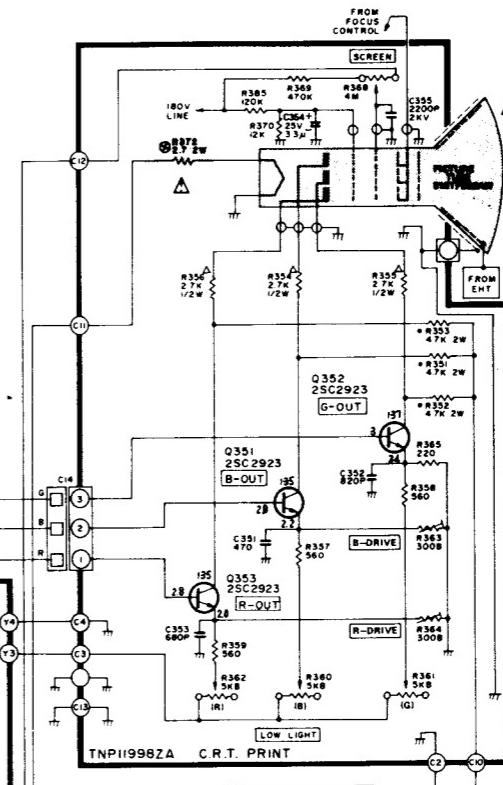
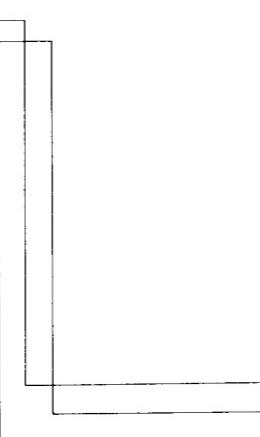
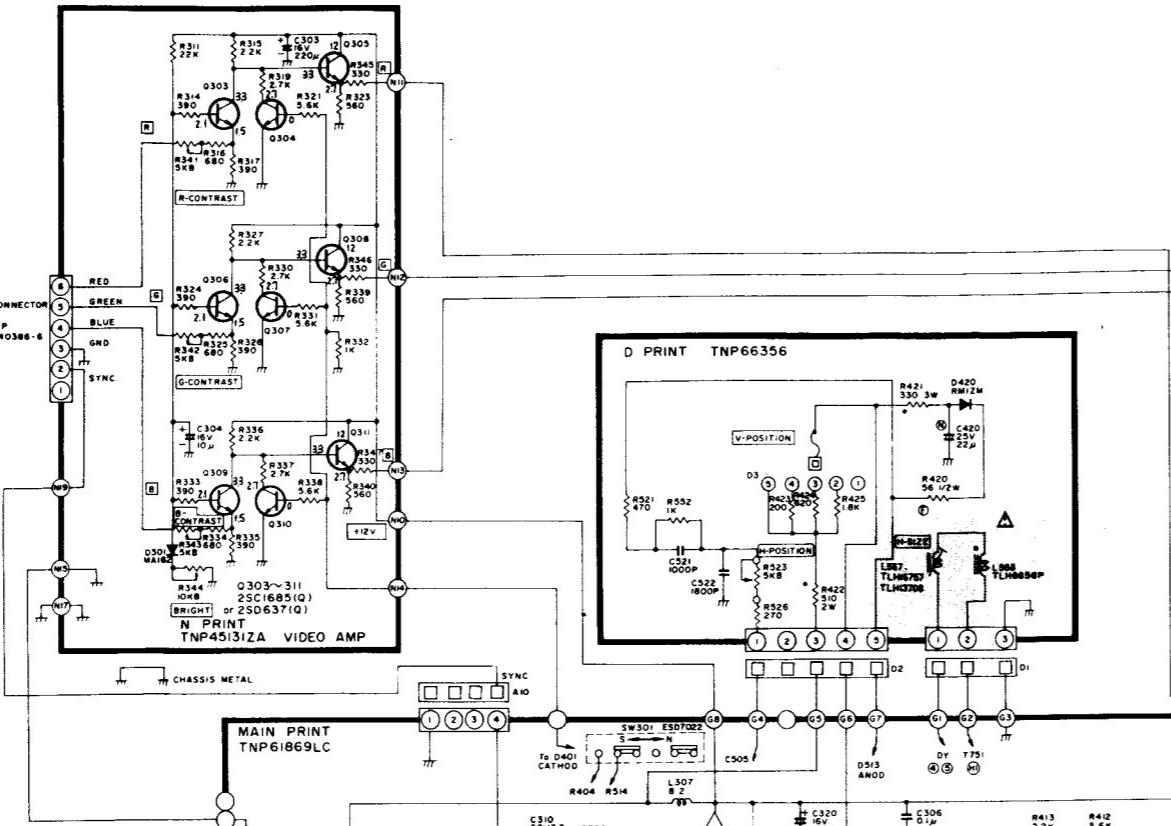
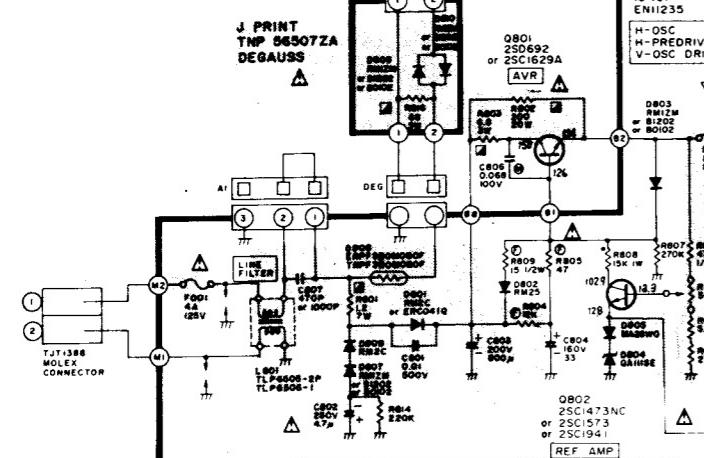
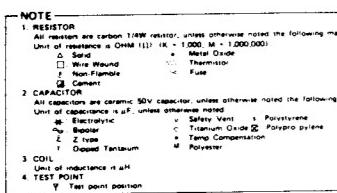
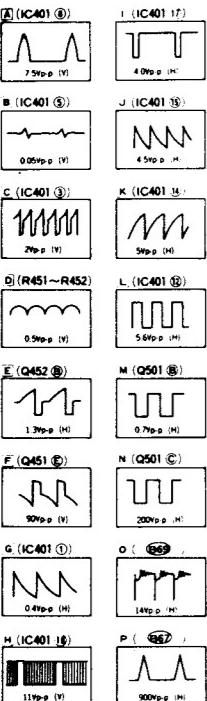
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Atari Color Raster Display Neck PCB Schematic Diagram



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Waveform



WARNING — Components identified by shading have special characteristics important to safety and must be replaced only with identical parts.

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Matsushita Color Raster Display Schematic Diagram



Arabian Memory Map

| HEXA-DECIMAL ADDRESS | ADDRESS BUS SIGNAL LINES | | | | | | | | | | | | READ/ WRITE DATA BUS SIGNAL LINES | | | | | | | | FUNCTION | | | | |
|----------------------|--------------------------|-----|-----|-----|-----|-----|----|----|----|----|----|----|-----------------------------------|----|----|-----|----|----|----|----|----------|----|----|--------------------|---------------------------|
| | A15 | A14 | A13 | A12 | A11 | A10 | A9 | A8 | A7 | A6 | A5 | A4 | A3 | A2 | A1 | A0 | D7 | D6 | D5 | D4 | D3 | D2 | D1 | D0 | |
| E006 | 1 | 1 | 1 | 0 | A | A | A | A | A | A | A | A | 1 | 1 | 0 | W | D | D | D | D | D | D | D | X _Y (H) | Picture Size and |
| E005 | 1 | 1 | 1 | 0 | A | A | A | A | A | A | A | A | 1 | 0 | 1 | W | D | D | D | D | D | D | D | X _Y (L) | DMA Start |
| E004 | 1 | 1 | 1 | 0 | A | A | A | A | A | A | A | A | 1 | 0 | 0 | W | D | D | D | D | D | D | D | WR(H) | DMA RAM |
| E003 | 1 | 1 | 1 | 0 | A | A | A | A | A | A | A | A | 0 | 1 | 1 | W | D | D | D | D | D | D | D | WR(L) | Start Address |
| E002 | 1 | 1 | 1 | 0 | A | A | A | A | A | A | A | A | 0 | 1 | 0 | W | D | D | D | D | D | D | D | RD(H) | DMA ROM |
| E001 | 1 | 1 | 1 | 0 | A | A | A | A | A | A | A | A | 0 | 0 | 1 | W | D | D | D | D | D | D | D | RD(L) | Start Address |
| E000 | 1 | 1 | 1 | 0 | A | A | A | A | A | A | A | A | 0 | 0 | 0 | W | | | | D | D | D | D | BSEL | Bank Select |
| DFFF-D000 | 1 | 1 | 0 | 1 | A | A | A | A | A | A | A | A | A | A | A | R/W | D | D | D | D | D | D | D | | Custom Microprocessor RAM |
| CA00 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | A | A | A | A | A | A | A | R/W | D | D | D | D | D | D | D | | Sound Chip Data |
| C800 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | A | A | A | A | A | A | A | W | D | D | D | D | D | D | D | | Sound Chip Address |
| C200 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | A | A | A | A | A | A | A | R | | | | D | D | D | D | | Option Switches |
| C000 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | A | A | A | A | A | A | A | R | | | | D | D | D | D | | Coin Inputs |
| BFFF-8000 | 1 | 0 | 1 | 1 | A | A | A | A | A | A | A | A | A | A | A | R/W | D | D | D | D | D | D | D | | Bit Map RAM |
| 6000-7FFF | 0 | 1 | 1 | A | A | A | A | A | A | A | A | A | A | A | A | R | D | D | D | D | D | D | D | ROM 3 | |
| 4000-5FFF | 0 | 1 | 0 | A | A | A | A | A | A | A | A | A | A | A | A | R | D | D | D | D | D | D | D | ROM 2 | |
| 2000-3FFF | 0 | 0 | 1 | A | A | A | A | A | A | A | A | A | A | A | A | R | D | D | D | D | D | D | D | ROM 1 | Program ROM (Z-80) |
| 0000-1FFF | 0 | 0 | 0 | A | A | A | A | A | A | A | A | A | A | A | A | R | D | D | D | D | D | D | D | ROM 0 | |

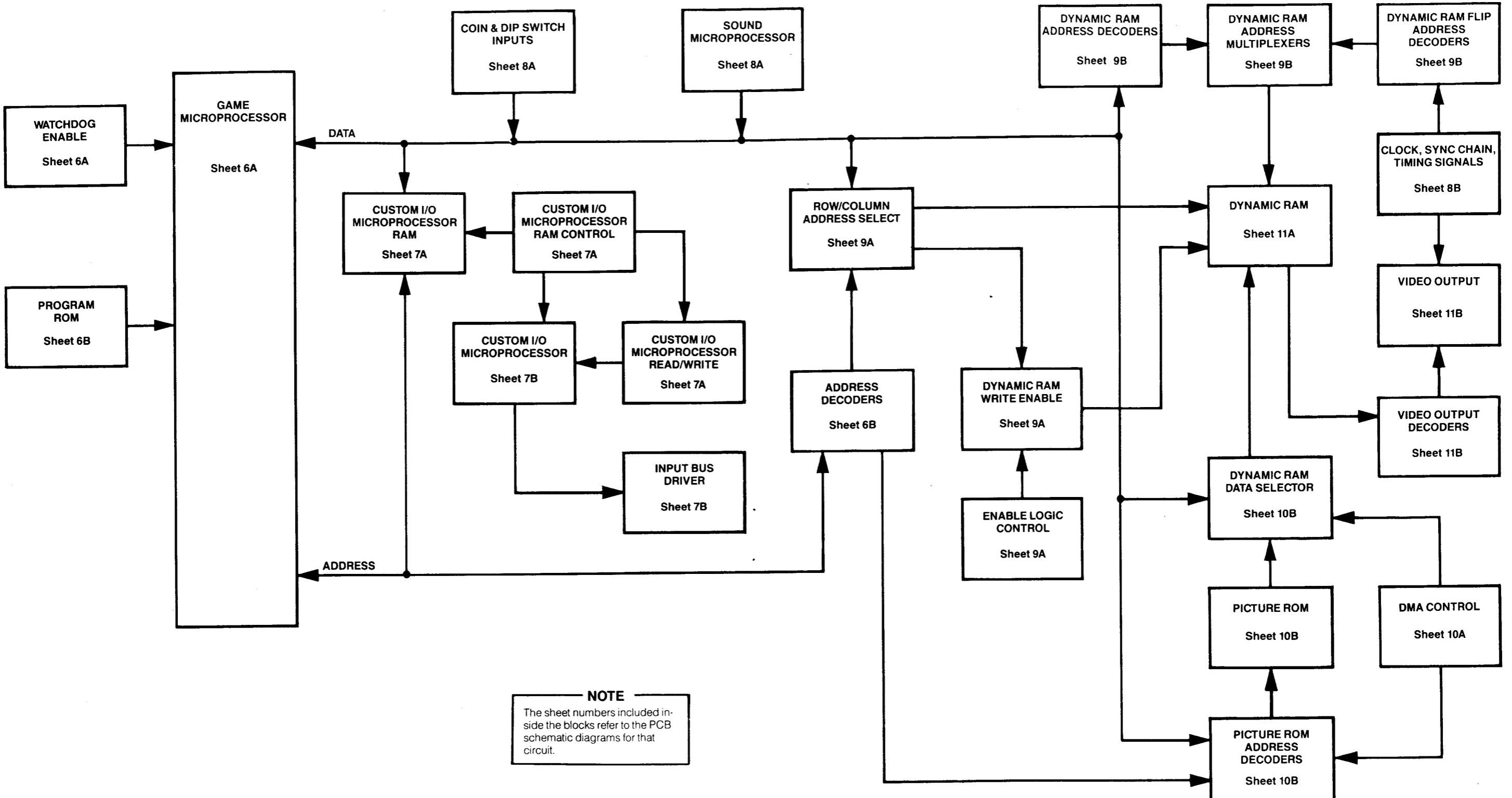
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Arabian Memory Map



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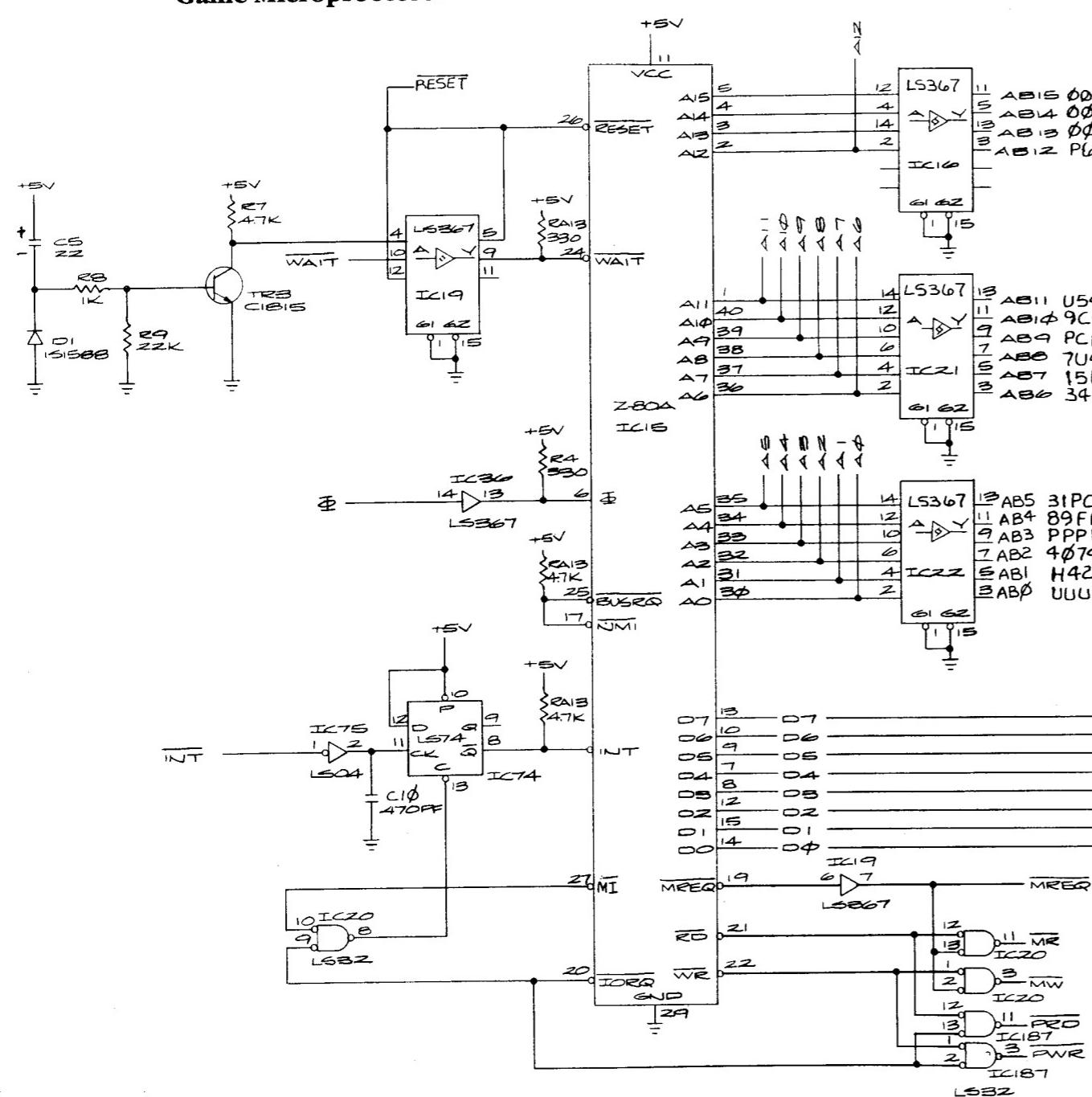


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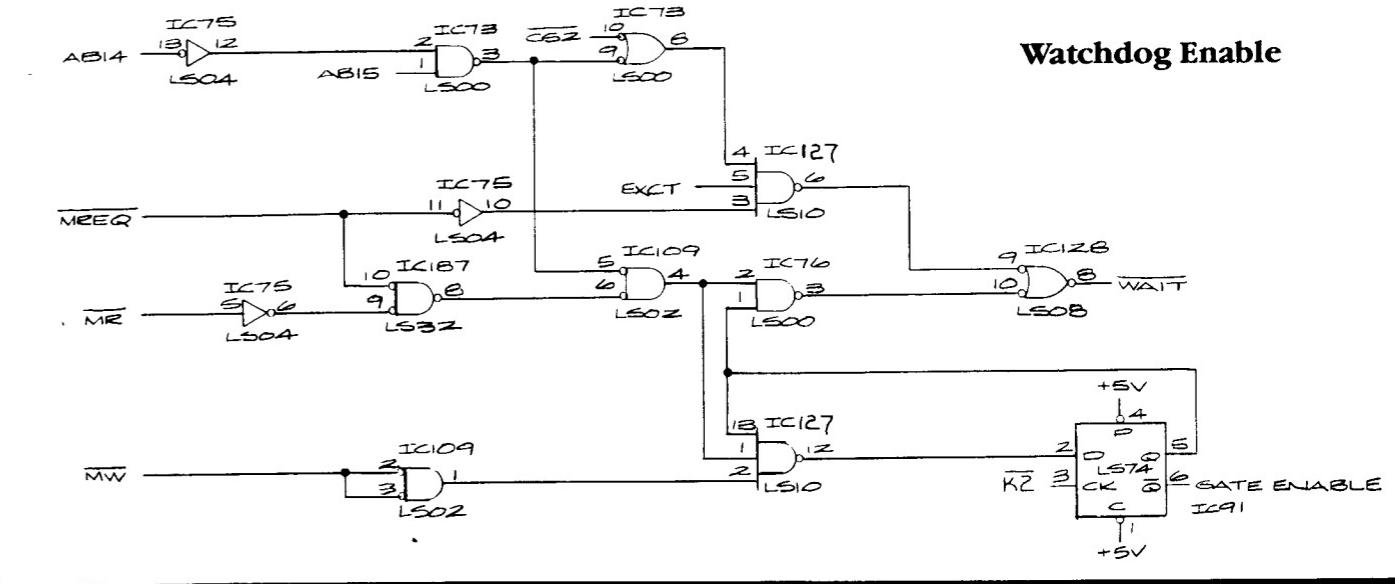
Arabian Block Diagram/Guide to PCB Schematics



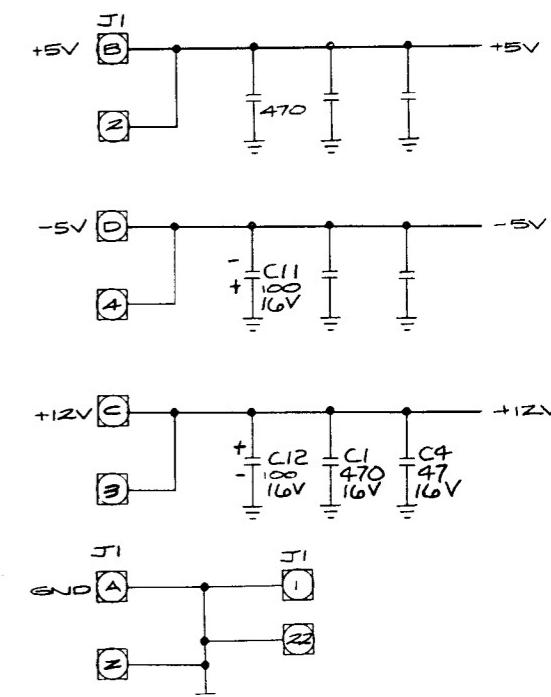
Game Microprocessor



Watchdog Enable



Game Power Input



NOTES:

 DENOTES J1 CONNECTOR

DENOTES J2 CONNECTOR

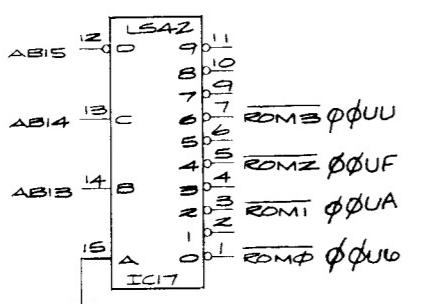
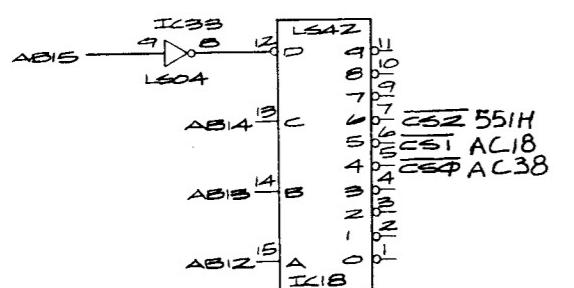
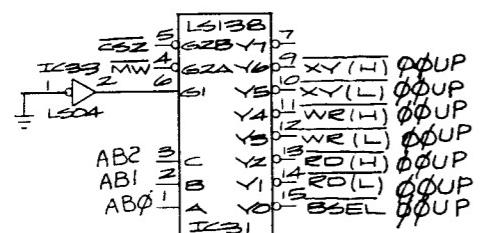
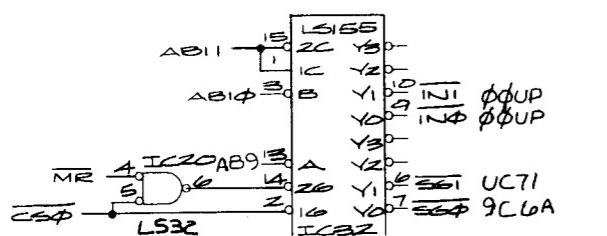
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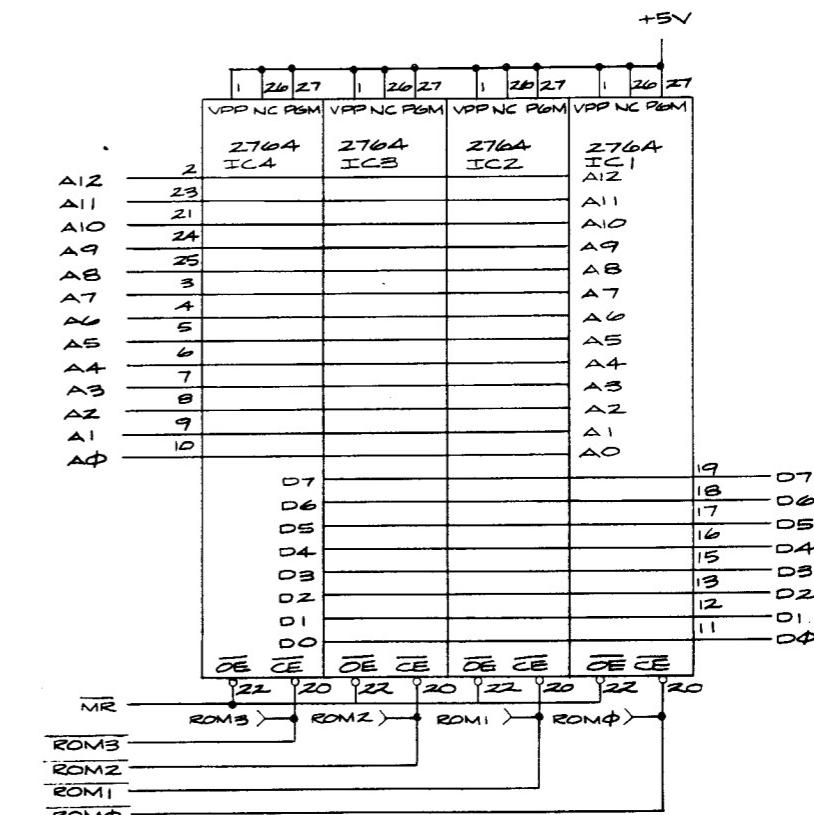
Arabian PCB Schematic Diagram



Address Decoders



Program ROM

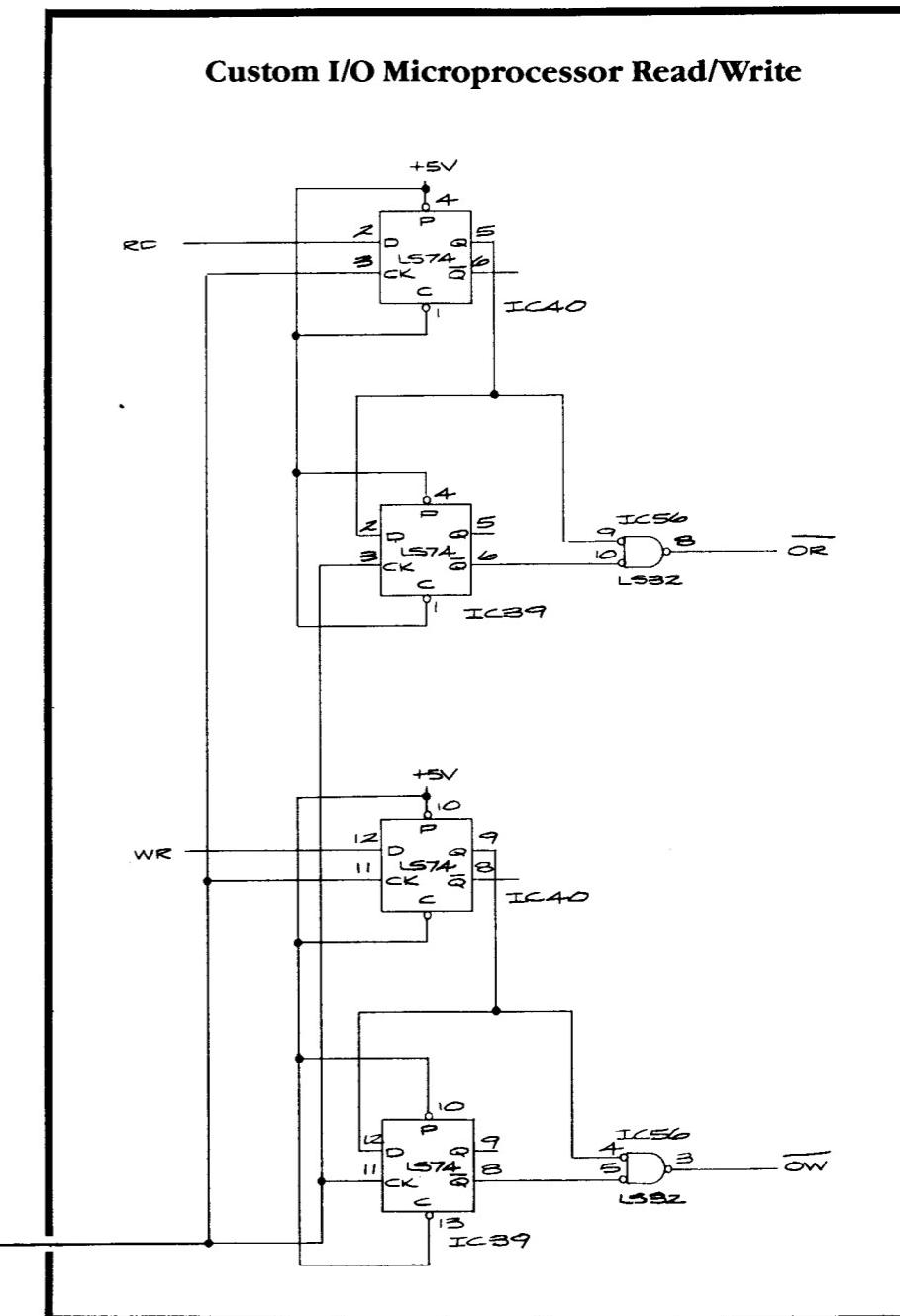
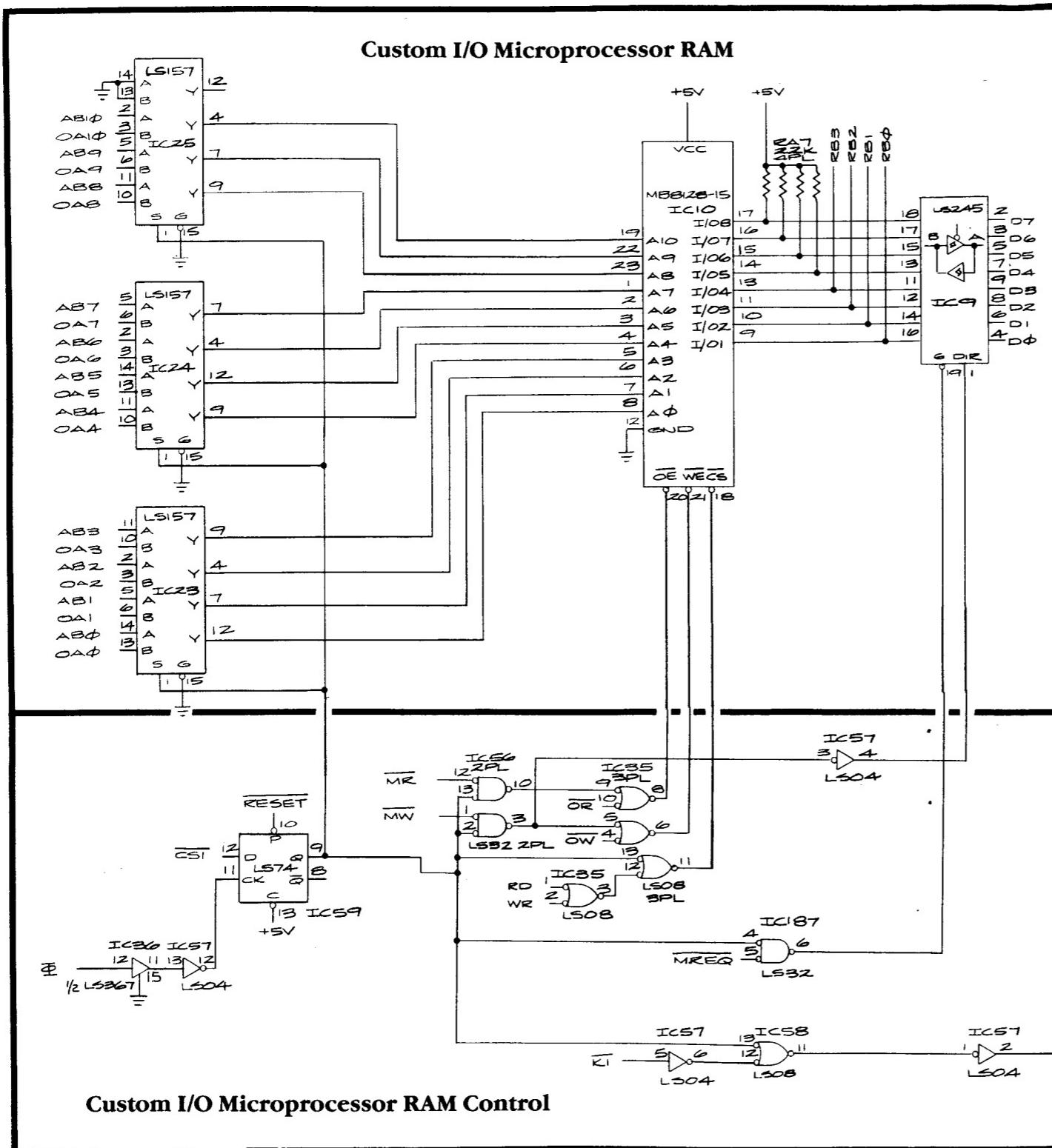


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Arabian PCB Schematic Diagram



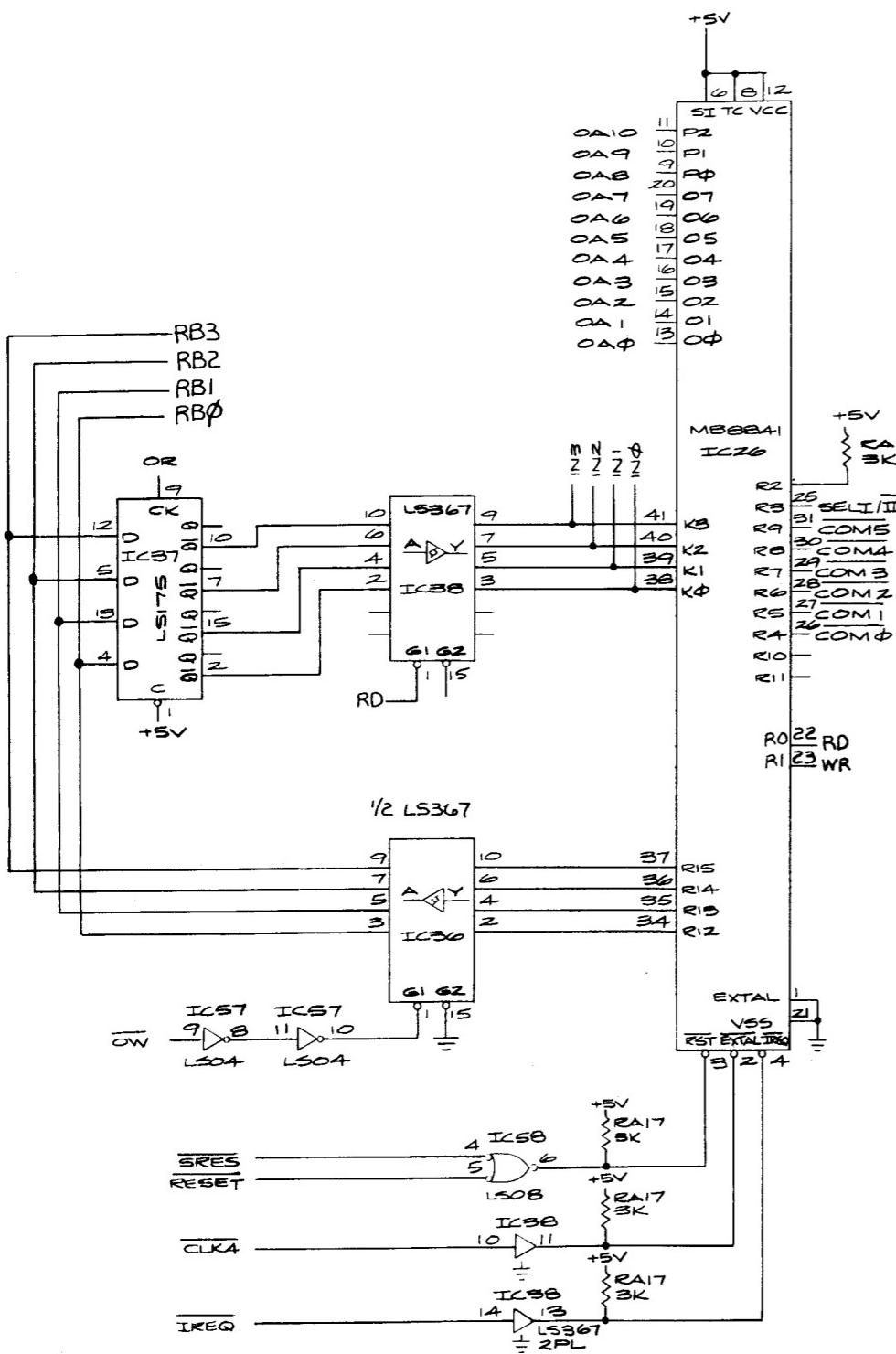


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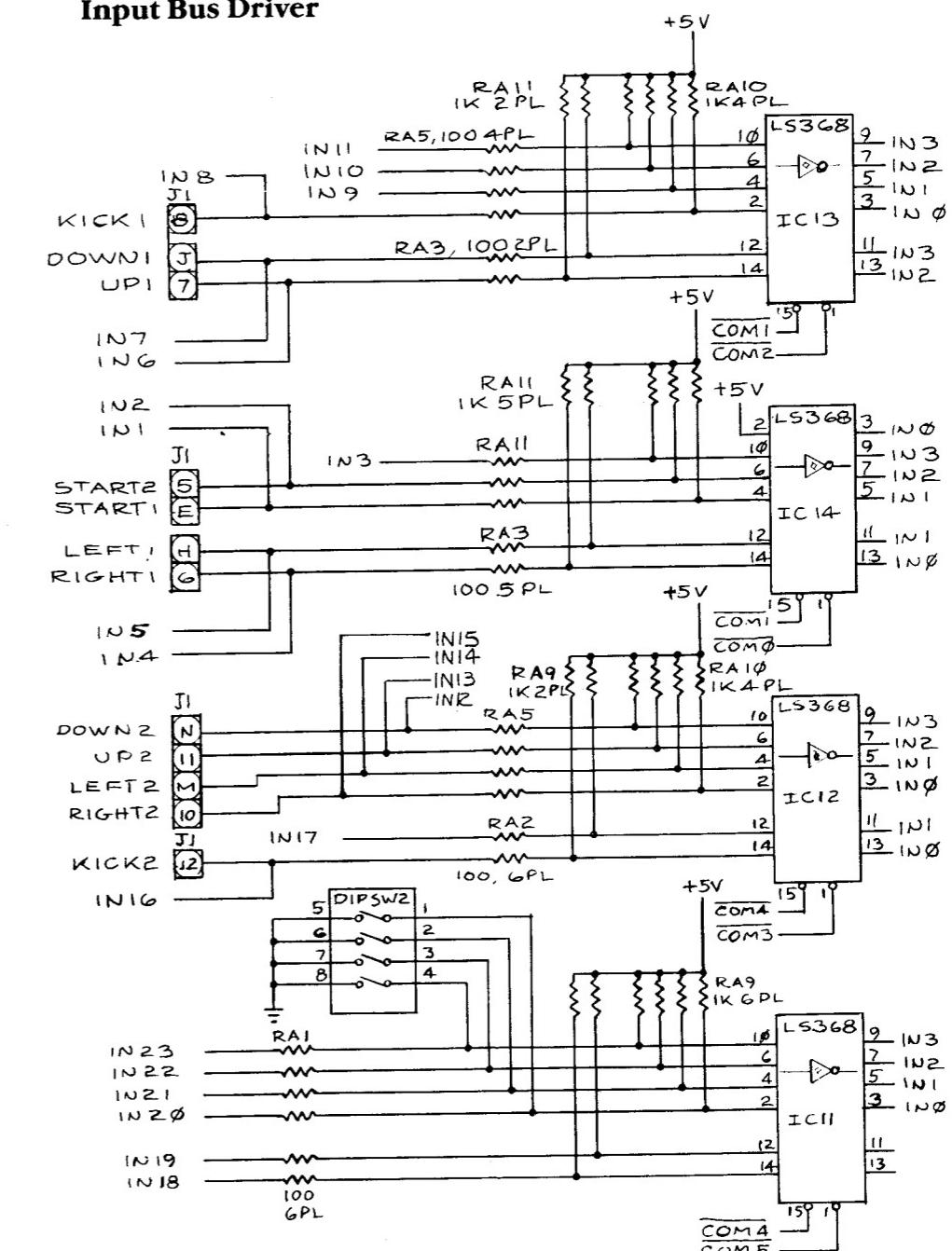
Arabian PCB Schematic Diagram



Custom I/O Microprocessor



Input Bus Driver



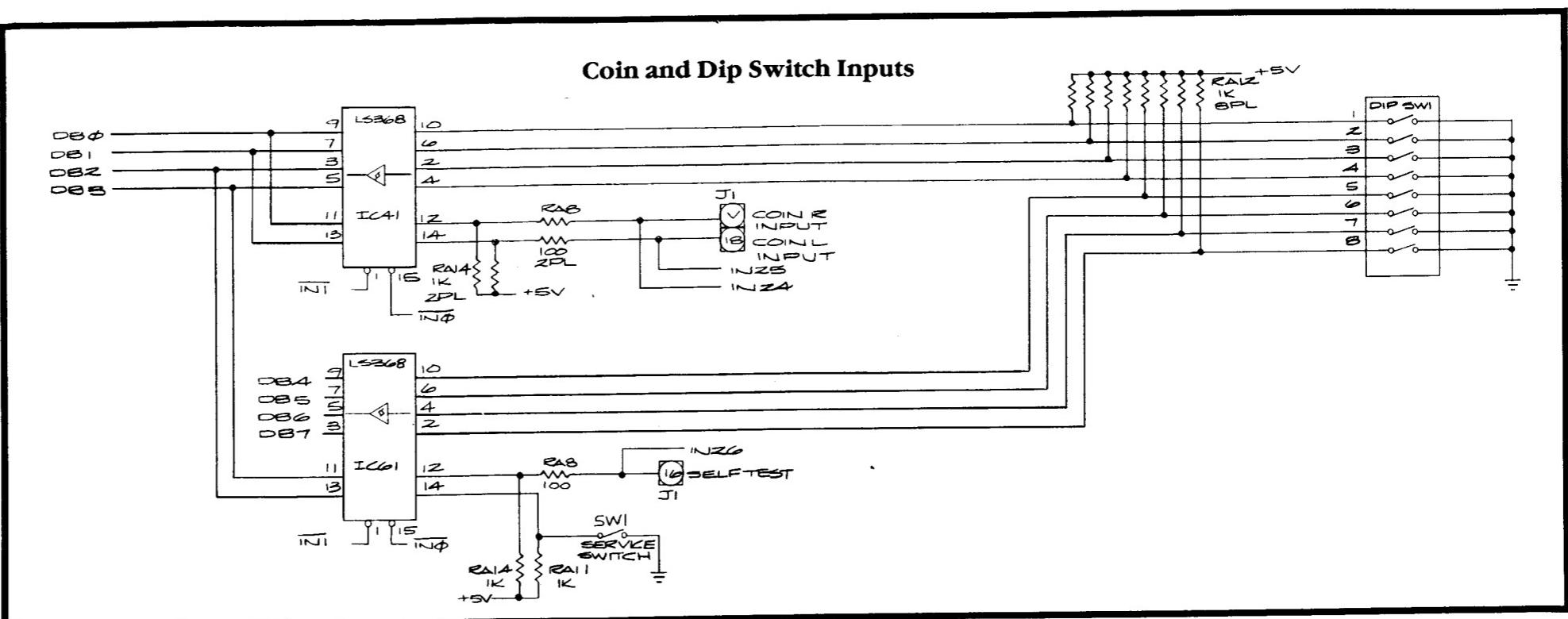
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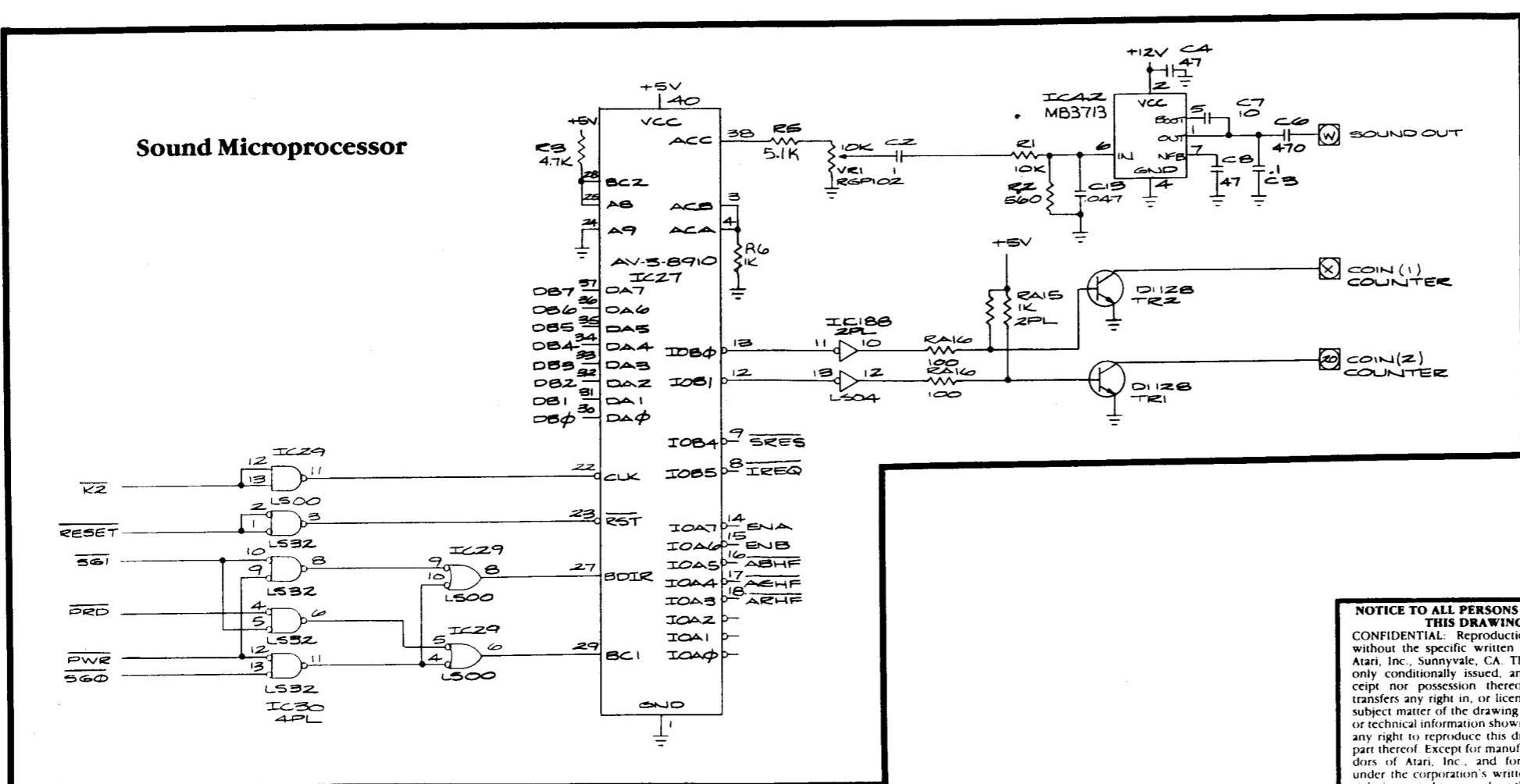
Arabian PCB Schematic Diagram



Coin and Dip Switch Inputs



Sound Microprocessor



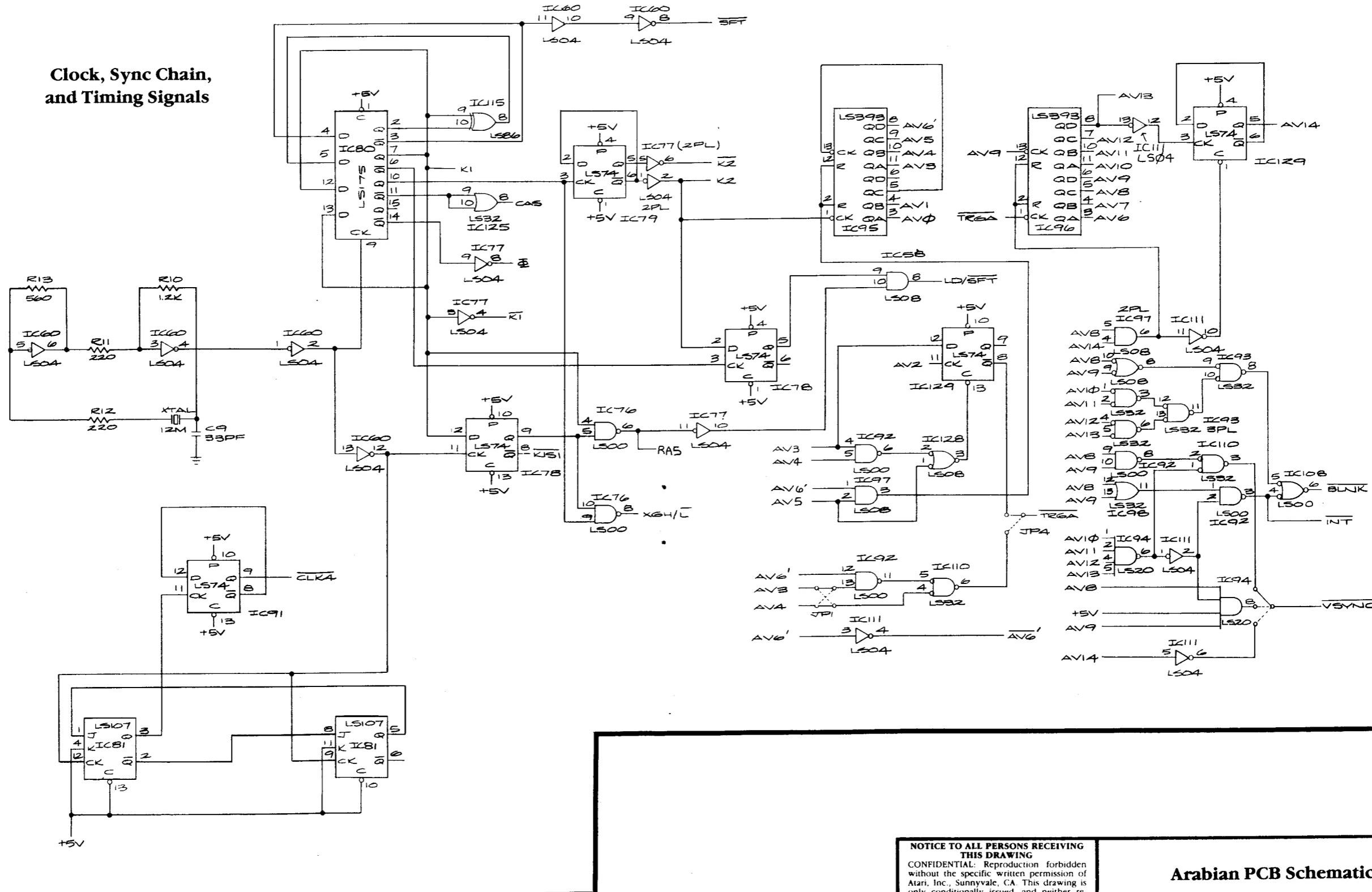
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Arabian PCB Schematic Diagram



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Clock, Sync Chain, and Timing Signals



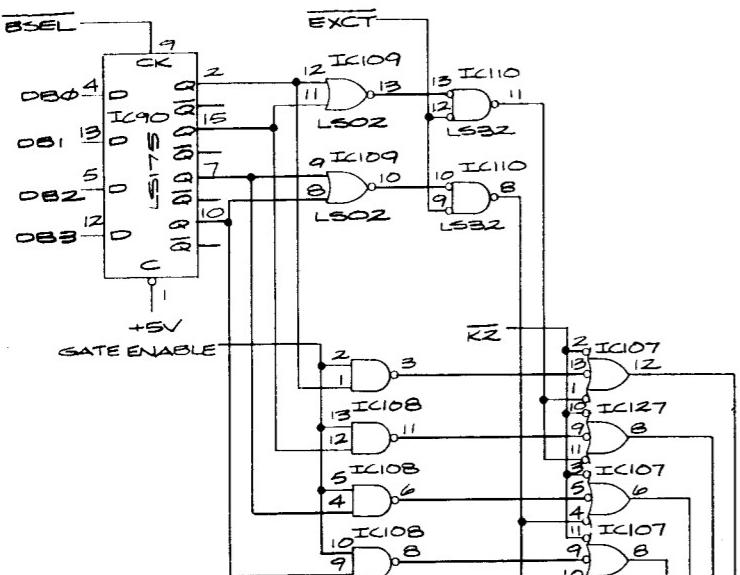
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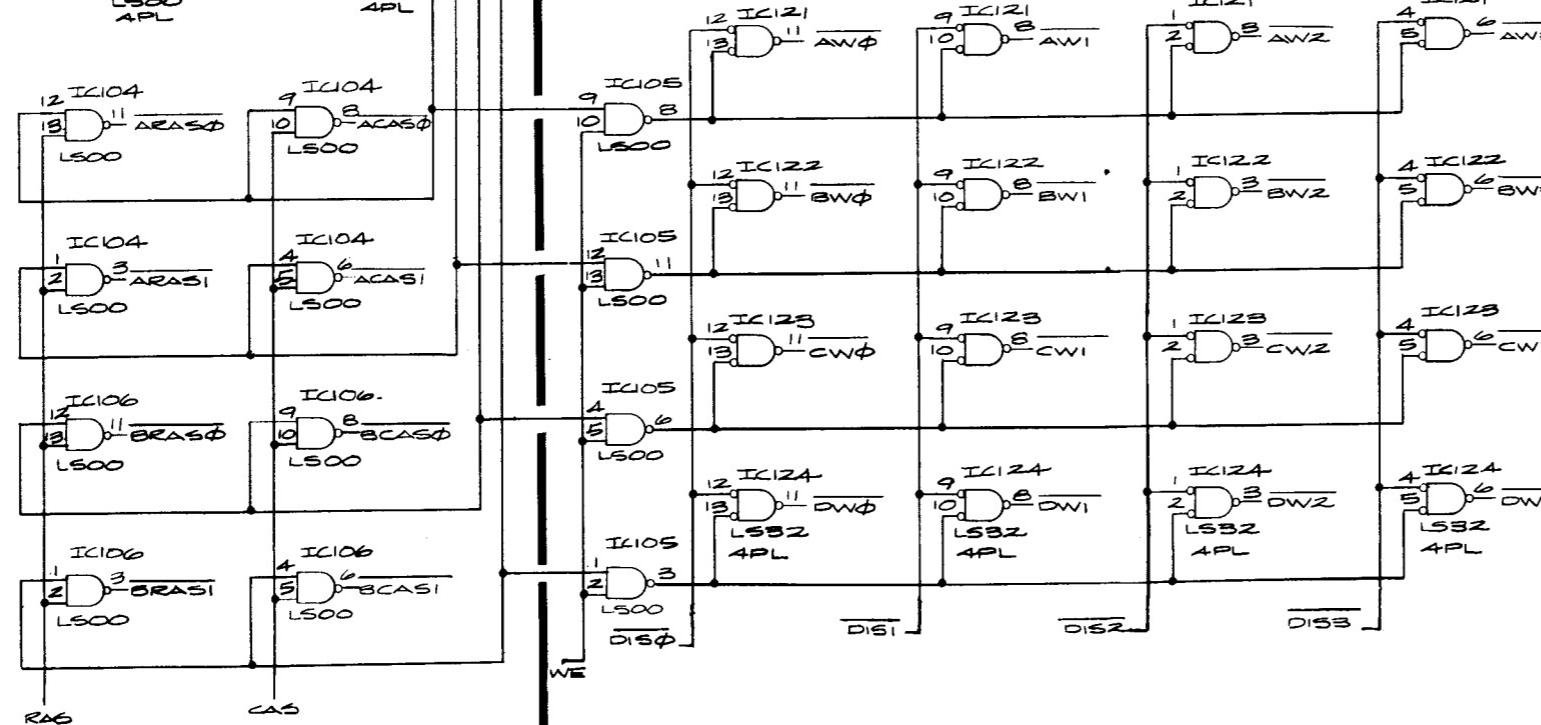
Arabian PCB Schematic Diagram



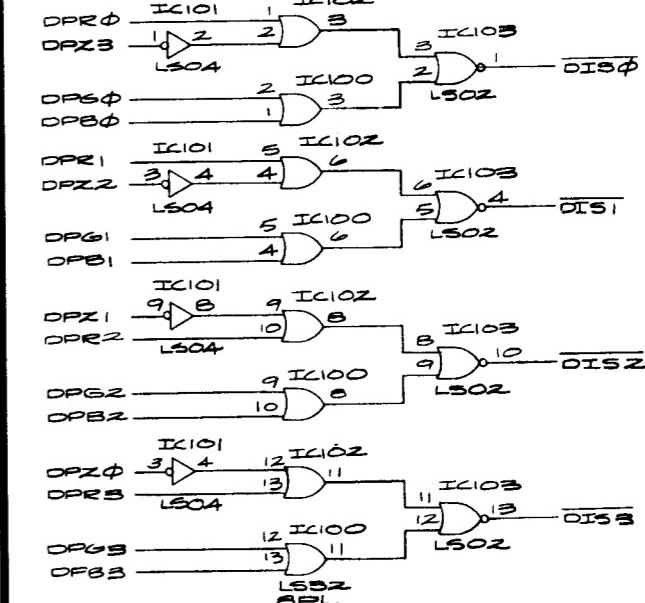
Row/Column Address Select



Dynamic RAM Write Enable



Enable Logic Control



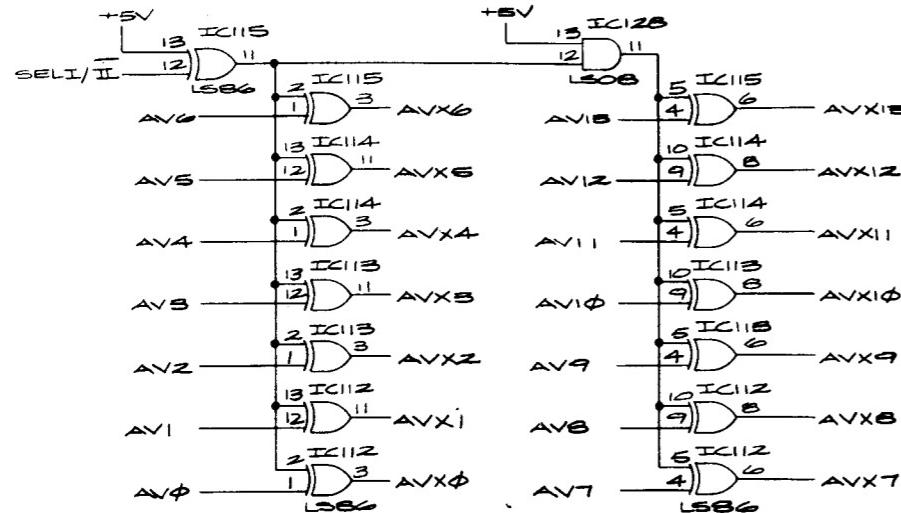
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Arabian PCB Schematic Diagram

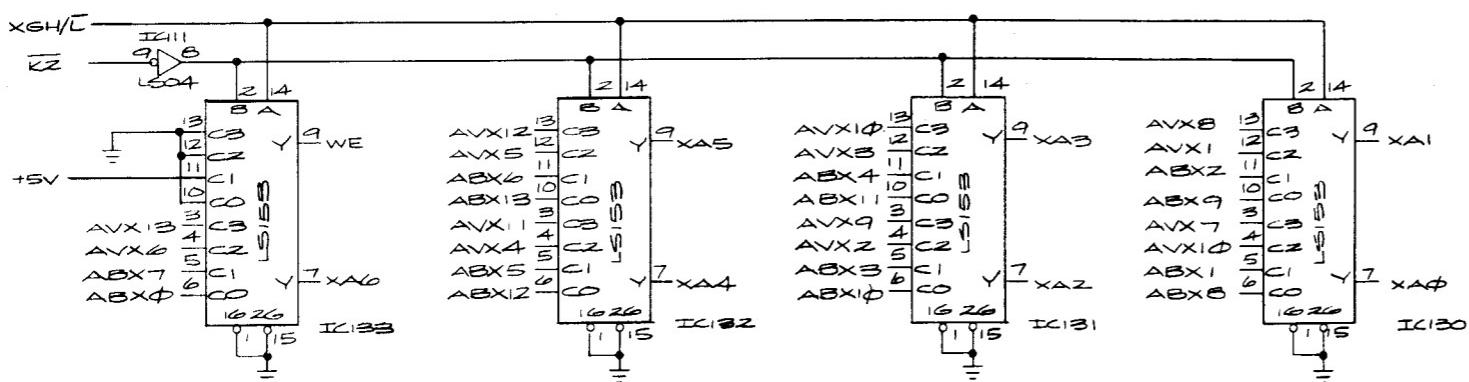


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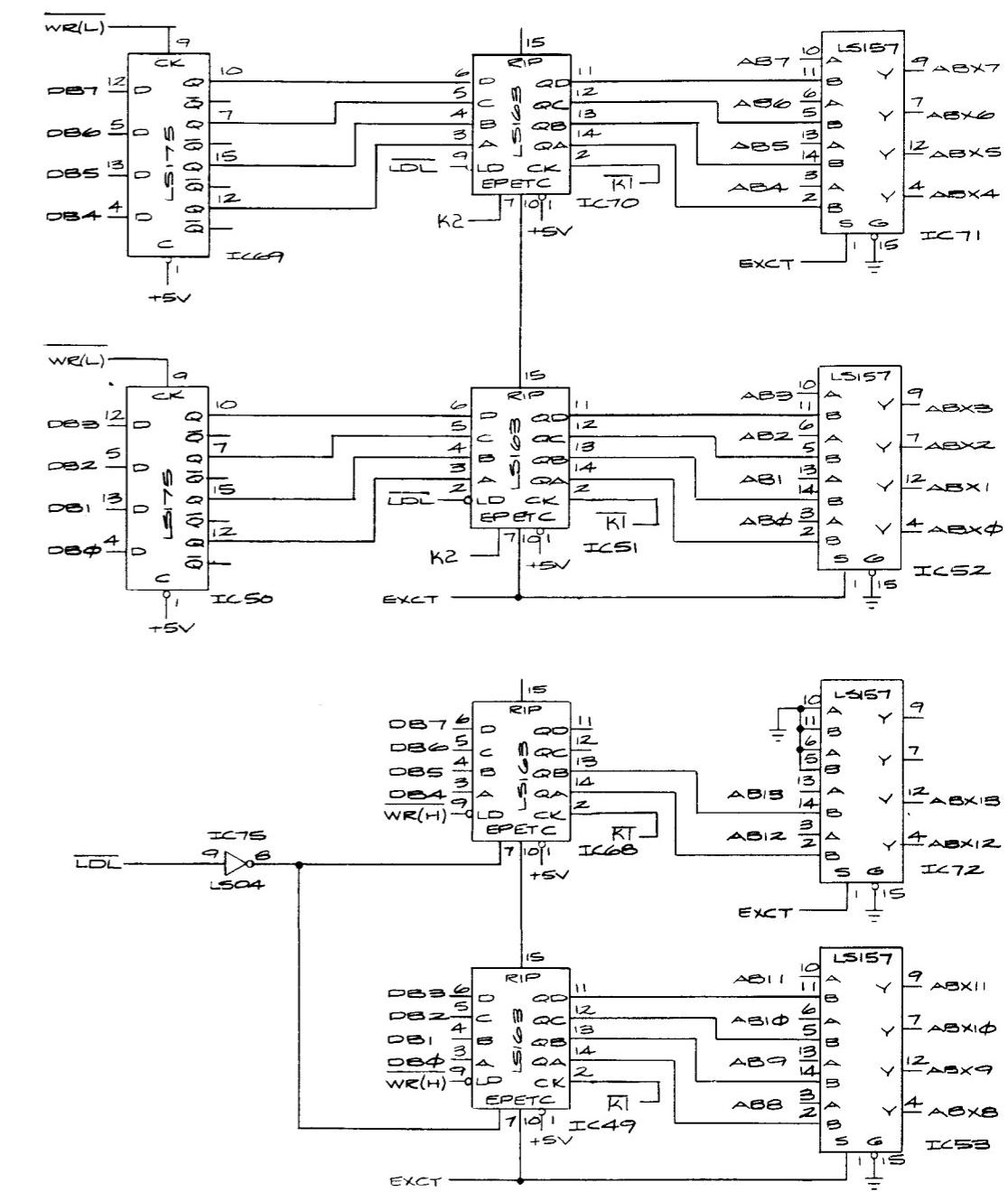
Dynamic RAM Flip Address Decoders



Dynamic RAM Address Multiplexers



Dynamic RAM Address Decoders



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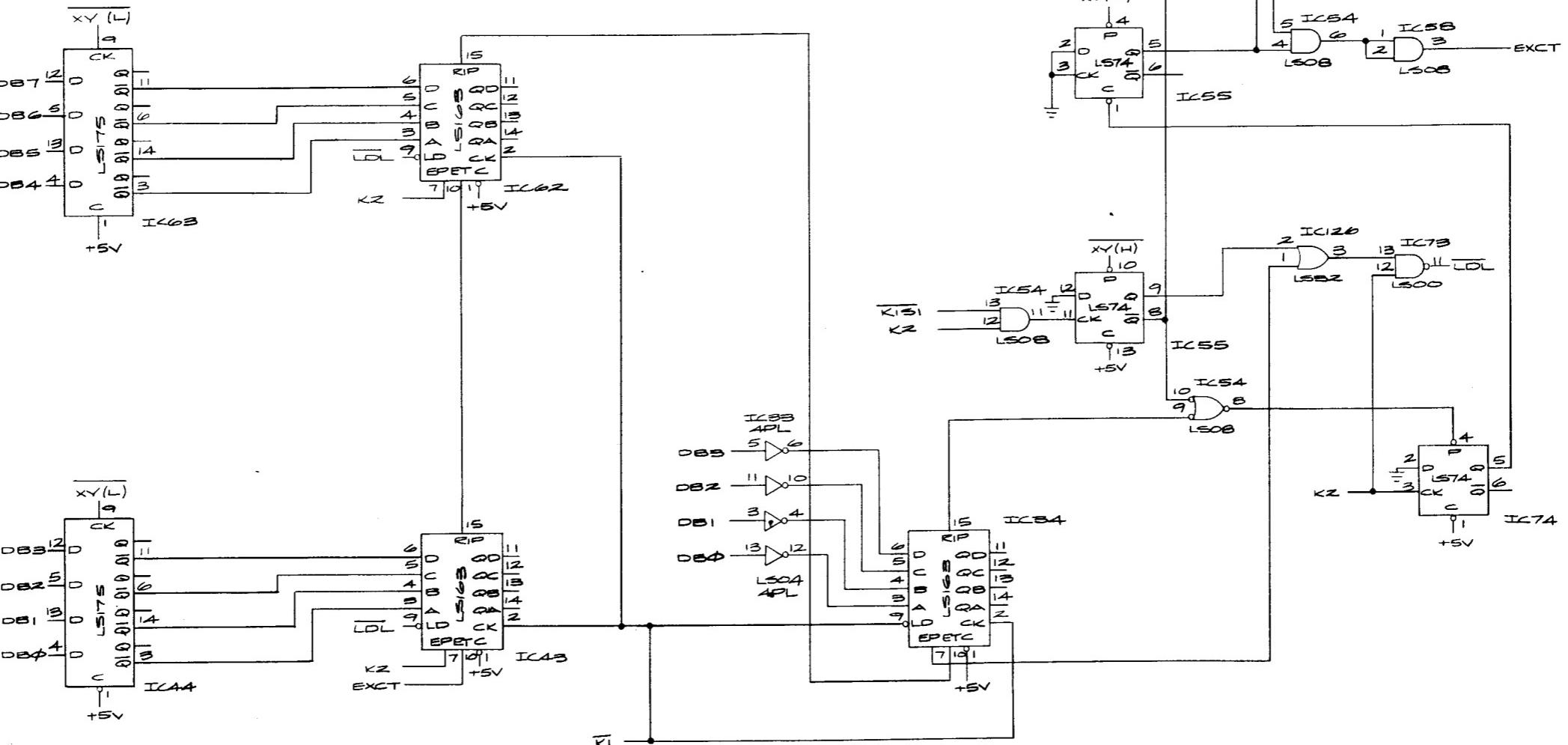
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Arabian PCB Schematic Diagram



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DMA Control

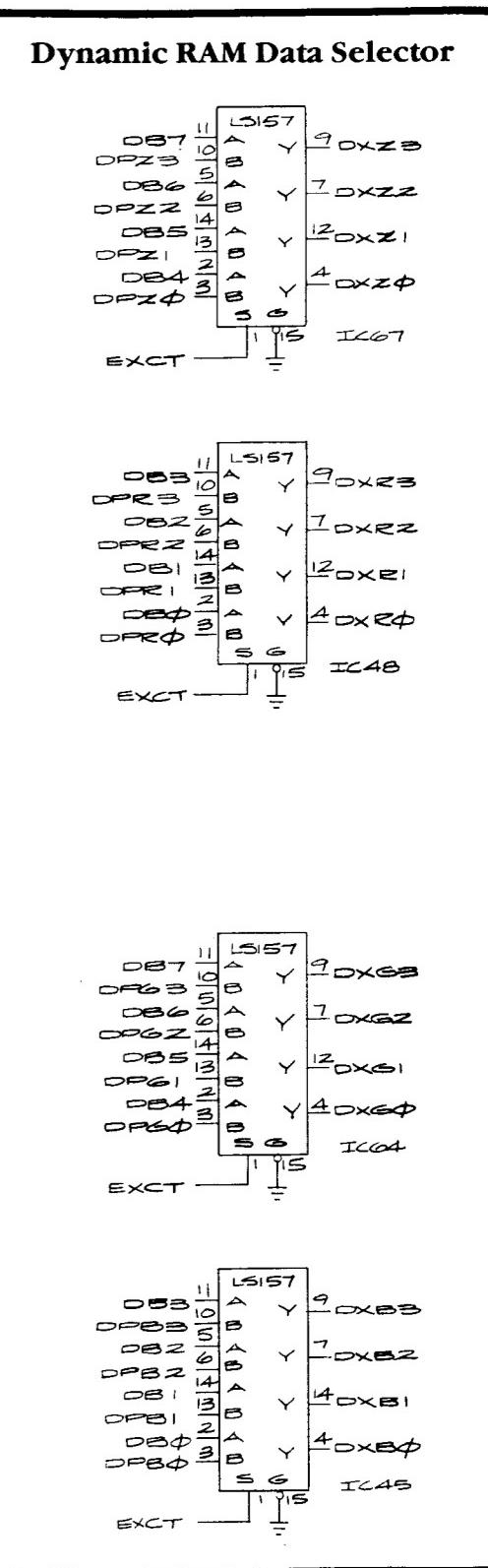
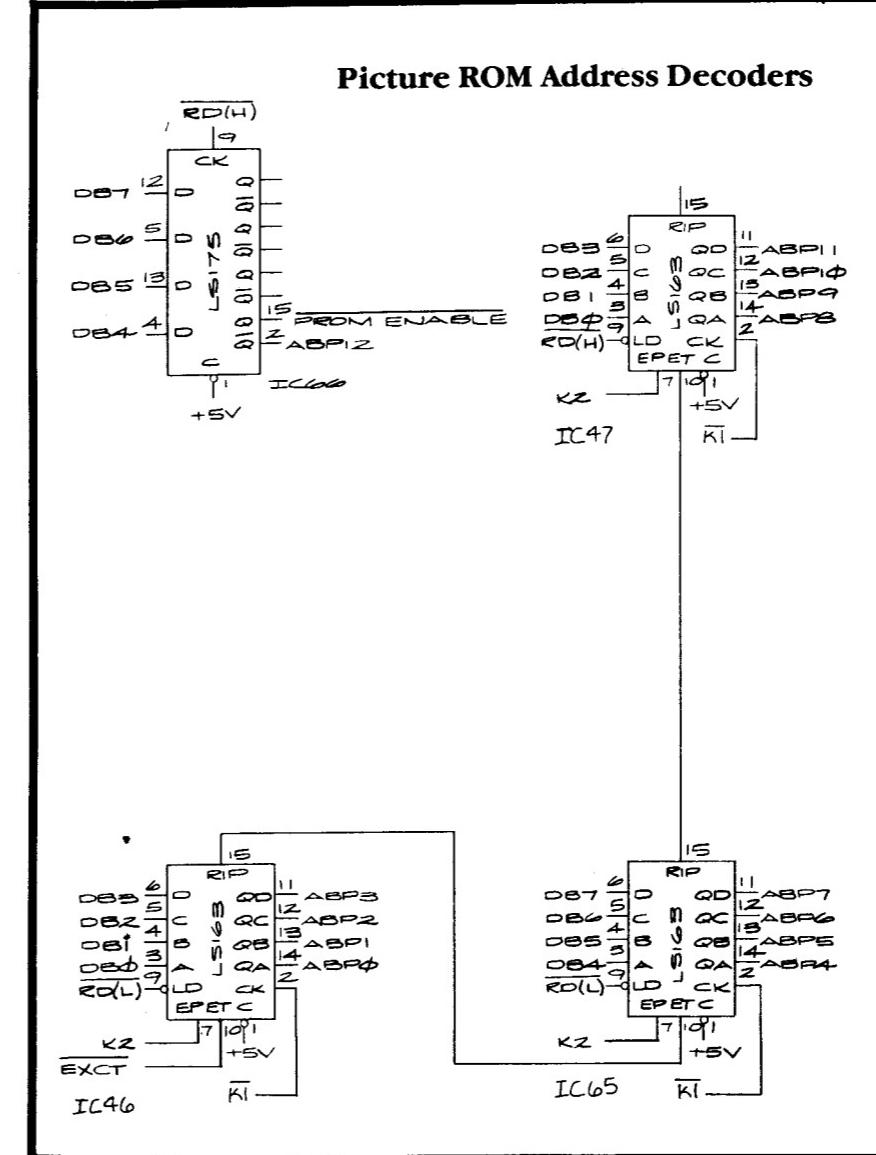
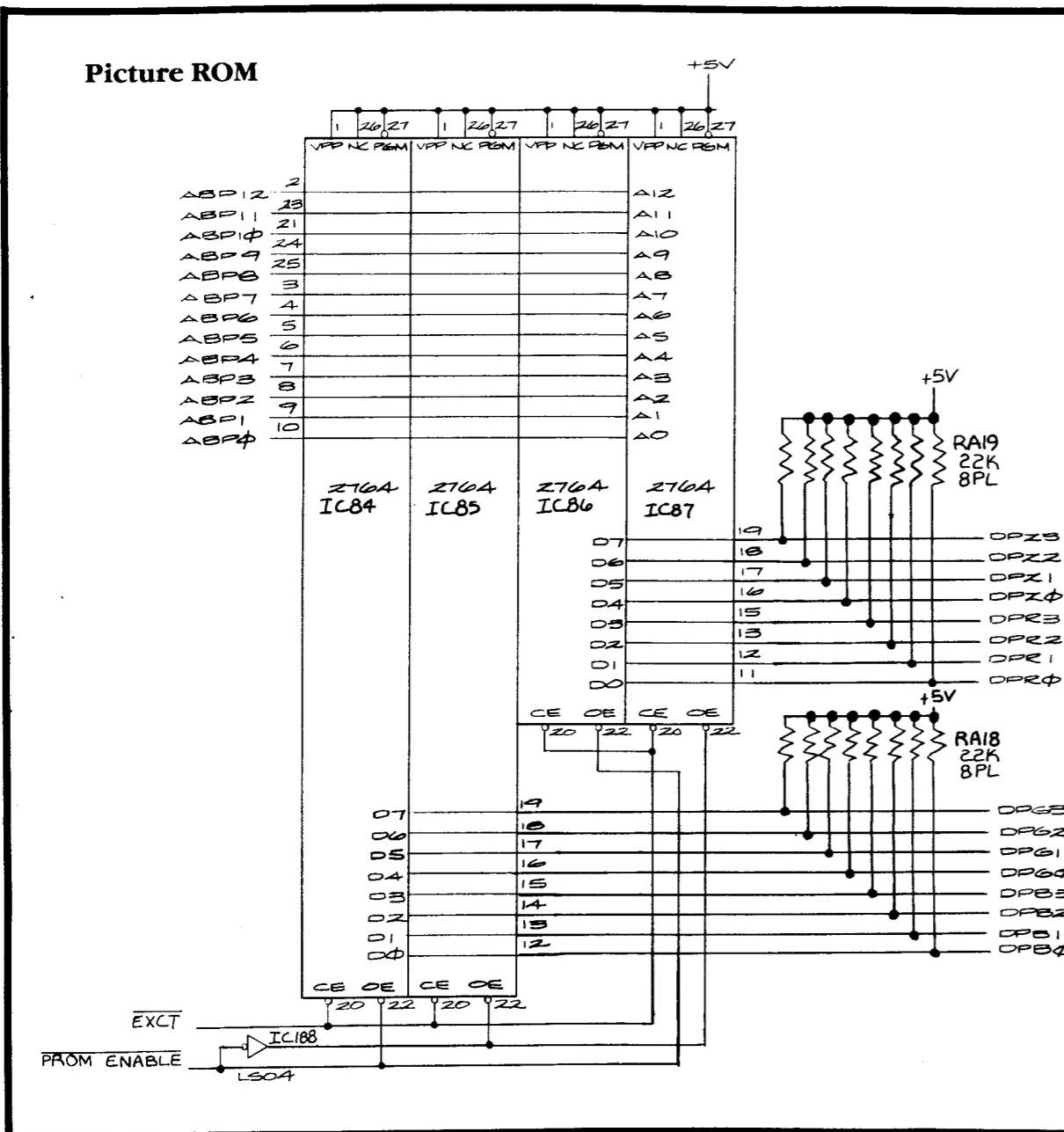


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Arabian PCB Schematic Diagram



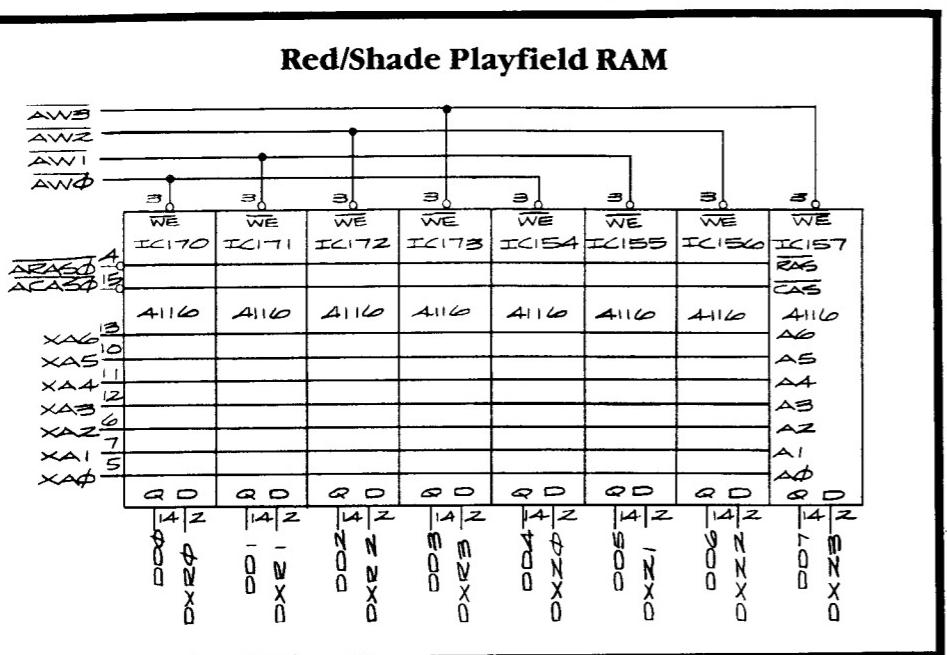


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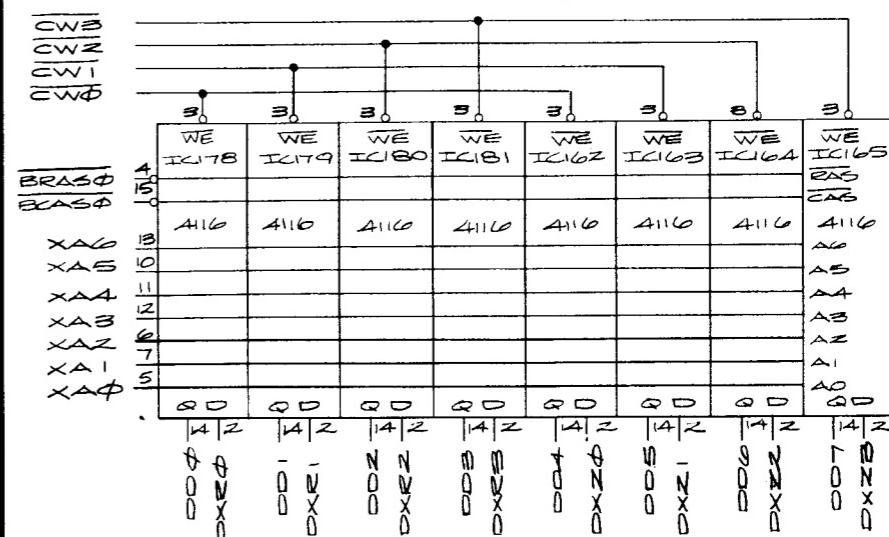
Arabian PCB Schematic Diagram



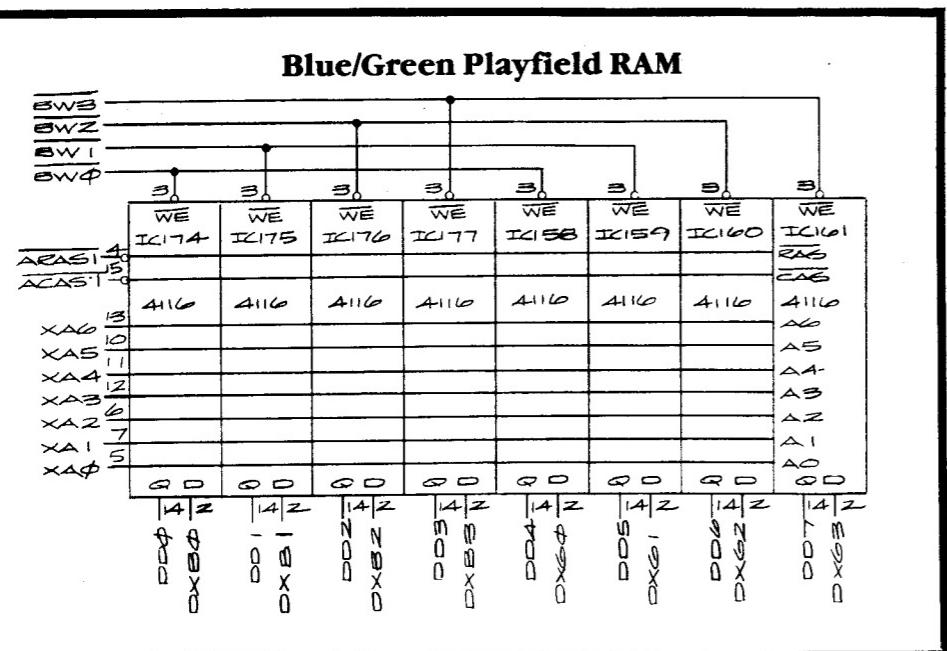
Red/Shade Playfield RAM



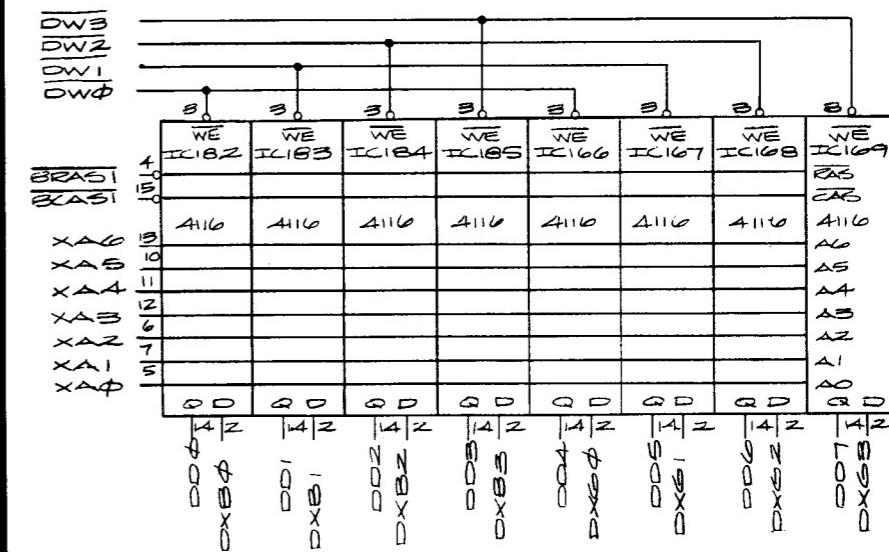
Red/Shade Motion Object RAM



Blue/Green Playfield RAM



Blue/Green Motion Object RAM



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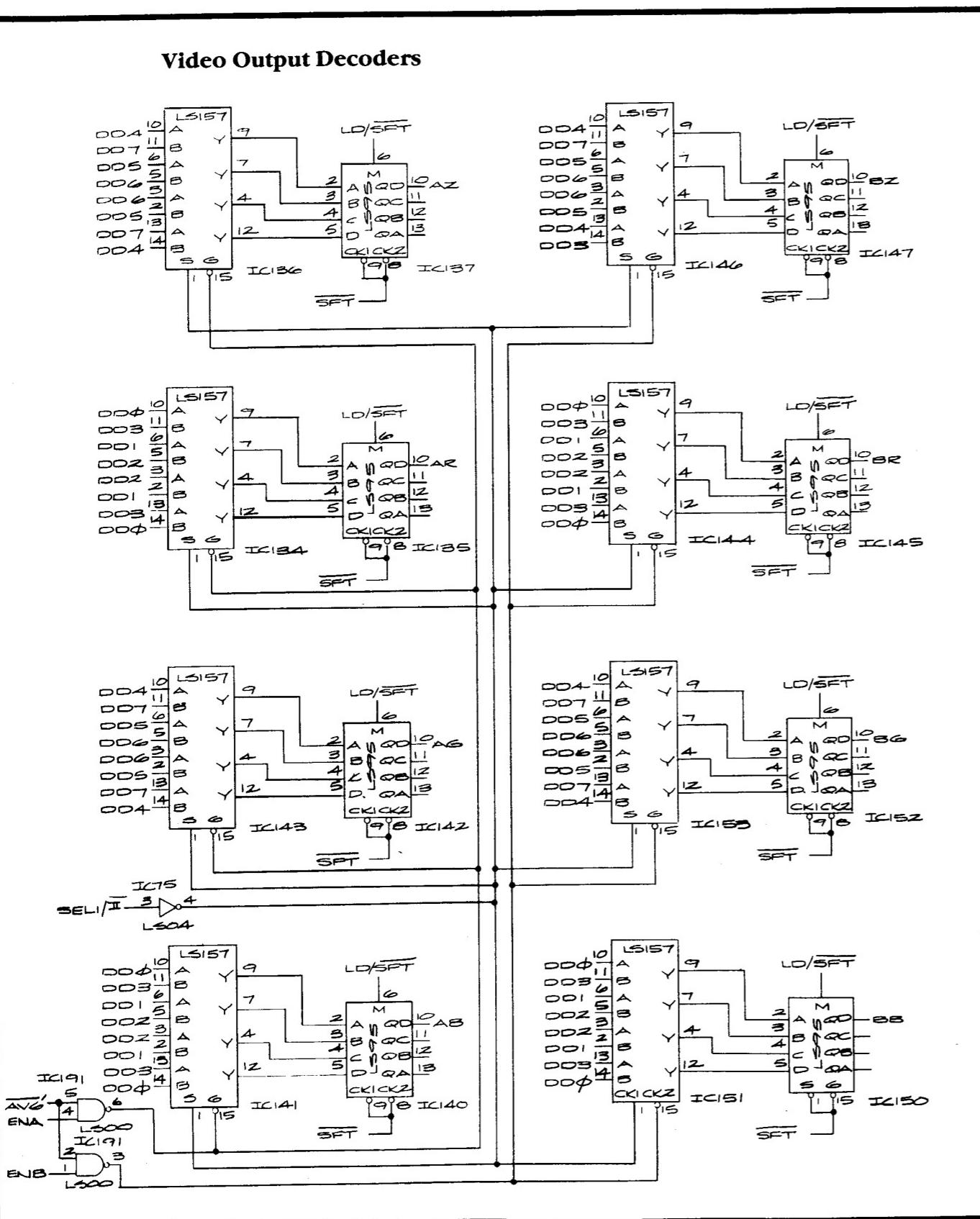
Arabian PCB Schematic Diagram



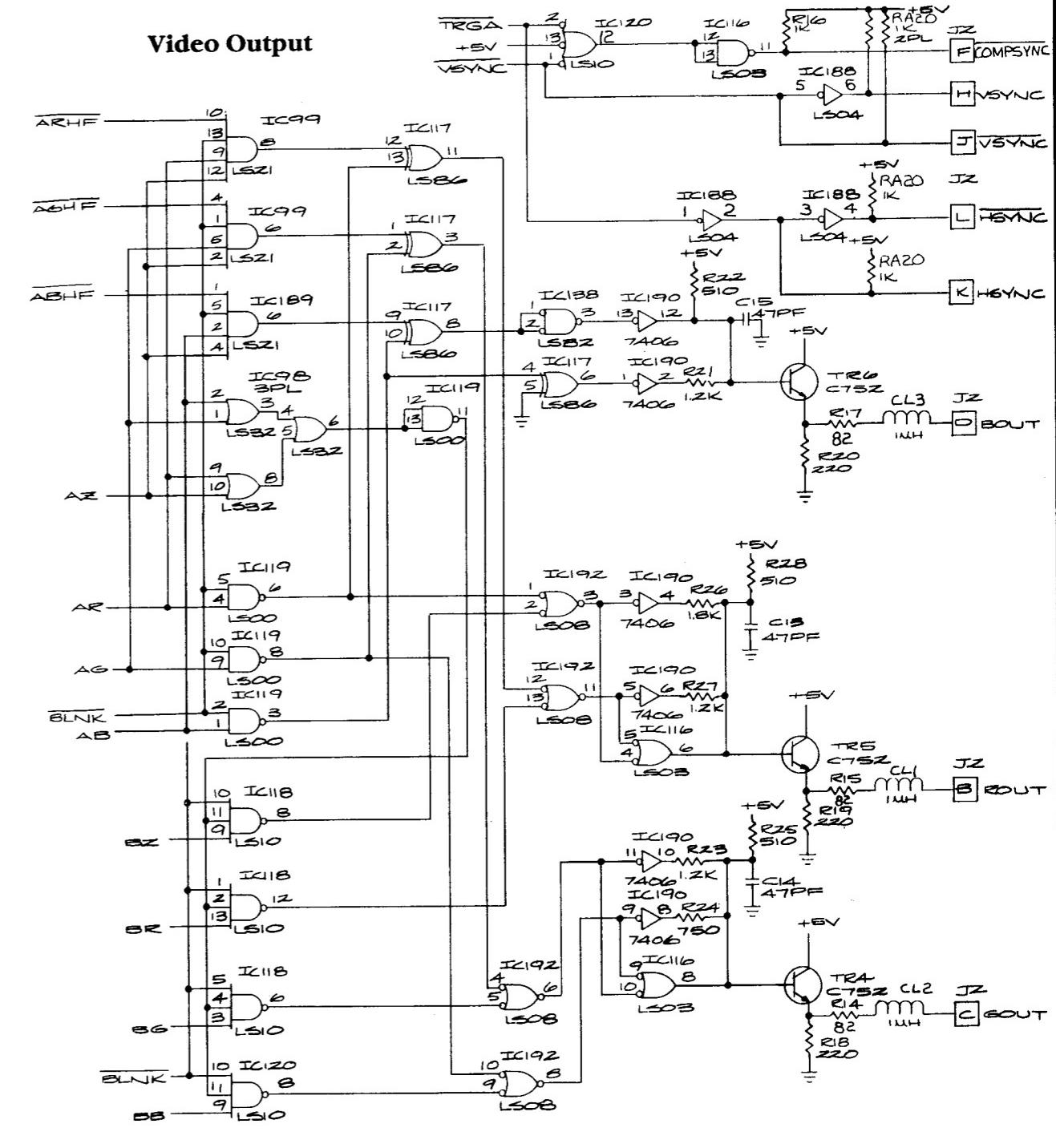
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SP-237 Sheet 11A
1st printing

Video Output Decoders



Video Output

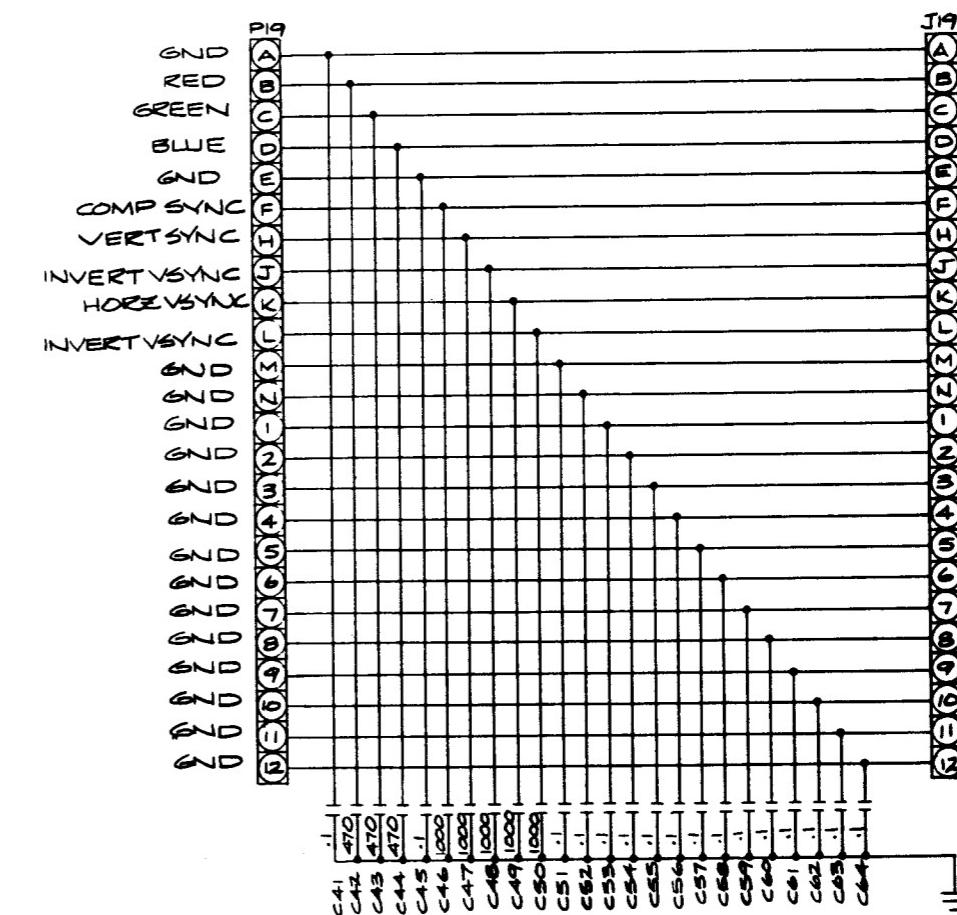
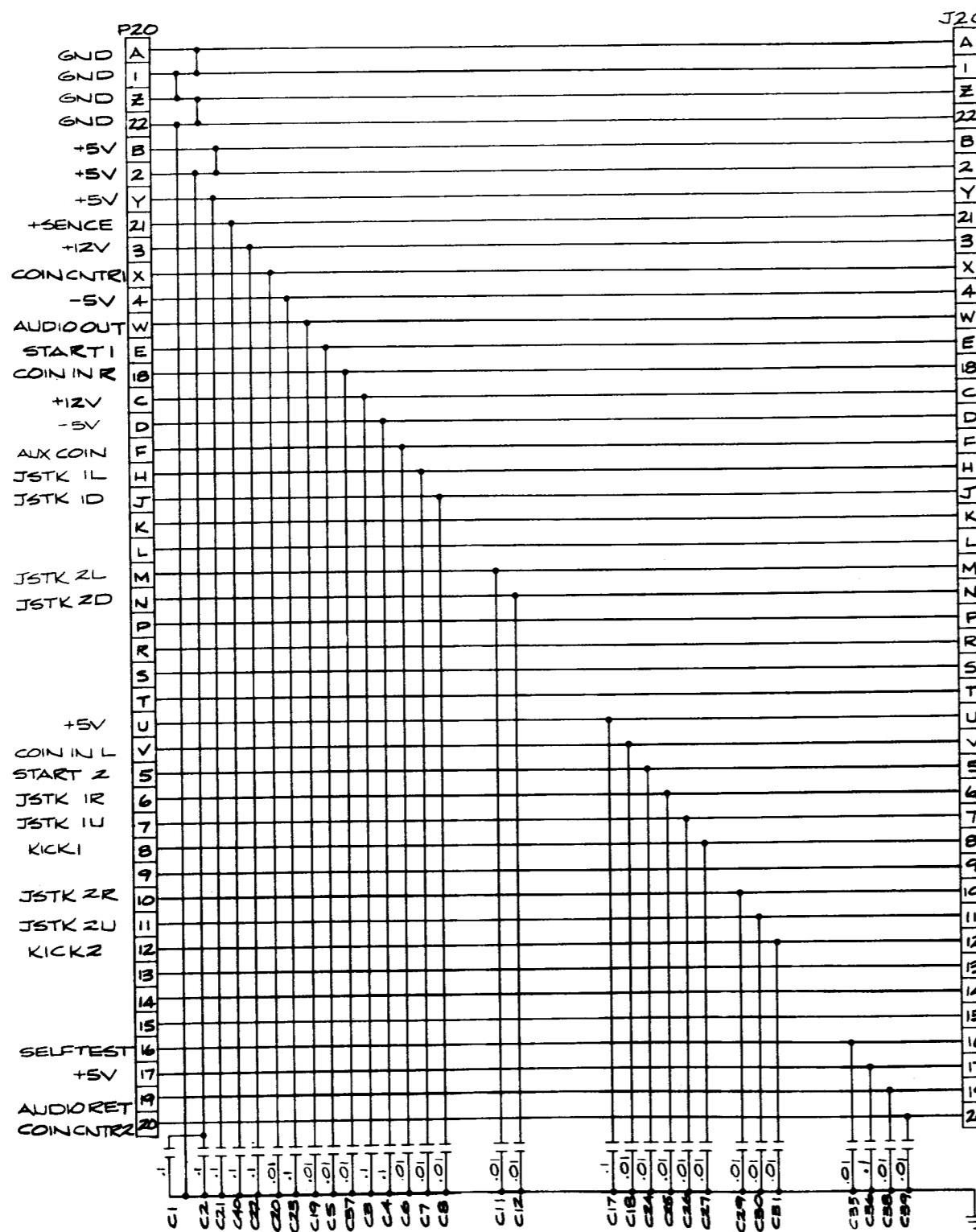


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Arabian PCB Schematic Diagram





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Arabian EMI Shield PCB Schematic Diagram



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